



coolOrange Wiki

- [01. Installation](#)
- [02. Activation and Trial Version](#)
- [03. Getting started](#)
- [04. Features](#)
- [Adding Jobs](#)
- [ERPJob](#)
- [Executing jobs from the Client](#)
- [Executing jobs via Lifecycle Event Editor](#)
- [The sample jobs](#)
- [05. Configuration](#)
- [Configure powerJobs PDF conversion settings](#)



01. Installation

1. [Overview](#)
2. [Requirements](#)
3. [After the Setup](#)
 - 3.1. [Install Locations](#)
 - 3.2. [Updates](#)
 - 3.3. [Uninstall](#)
4. [Related](#)

Overview

Description of the installation, deinstallation and updateprocess of powerJobs.

Requirements

- Vault Workgroup Client 2013
- Vault Collaboration Client 2013
- Vault Professional Client 2013
- Vault Workgroup Client 2014
- Vault Professional Client 2014
- powershell 2.0 or higher

Windows PowerShell 2.0 is part of your Windows 7. For earlier Windows versions, please follow this link for downloading the according PowerShell version: <http://support.microsoft.com/kb/968929>

After the Setup

After the setup of powerJobs, you have to reset all toolbars. You can do that with clicking on the Tools menupoint in Autodesk Vault and there click on customize. Now you should see all toolbars(Main menu,

Help, Standard and son on) and reset every toolbar you have. Now you can see the powerJobs menupoint in the standard toolbar. In case any of the toolbars gets visual bugs restart vault after the reset.

Install Locations

powerJobs is installed in the following locations on your system:

- All program libraries and executable files are placed in **C:\ProgramData\Autodesk\Vault 2013\Extensions\coolOrange.PowerJobs** and **C:\ProgramData\Autodesk\Vault 2013\Extensions\coolOrange.PowerJobs.Handler**
 - All job definition files, i.e. scripts and module libraries, are placed in **C:\ProgramData\coolOrange\powerJobs**
 - Shortcuts to open the Vault Jobprocessor and to the powerJobs Configuration directory are placed in the **start menu** and on your **desktop**.
 - A shortcut to the powerJobs documentation on the coolOrange Wiki is placed in the startmenu.
-

Updates

To install a newer version of powerJobs just execute the setup file of the new version. This will automatically update the files in the existing installation.

Uninstall

In case you want to remove powerJobs from your computer you can

- either execute the setup file again. This will give you the option to repair or remove powerJobs. Click on "Remove" to uninstall the program.
 - or you can go to "Control Panel - Programs and Features", find "coolOrange powerJobs 2013" and run "Uninstall"
-

Related

- [powerJobs](#)





02. Activation and Trial Version

1. [Overview](#)
2. [Trial Period](#)
3. [Activation Dialog](#)
 - 3.1. [Order](#)
 - 3.2. [Activate](#)
 - 3.3. [Use Trial](#)
4. [Trial Version](#)
5. [Related](#)

Overview

Here you get information about activating the product and the trial period.

Trial Period

After the installation powerJobs is available as a trial version for 30 days. During the trial period, every time the job processor is started and the first queued job starts executing, a dialog appears that allows you to either order the product, activate it or run powerJobs in trial mode.



Activation Dialog



Order

With the button **Order** you will be referred directly to the coolOrange order page. Once there, follow the instructions to order the product.

Activate

Once you have received a S/N from coolOrange you can click the button **Activate**. In the following dialog you have three different options to activate your product:



Product Name: powerJobs
Version: 2013
License Status: Trial 15 day(s) left out of 30 day trial.

Step 1: Request Activation Information

Serial Number: 0000-0000-0000-0000-0000-0000
Email Address:

☒ Online Activation ☐ Web ☐ Email Request

Activate

Step 2: Enter Activation Information

Activation Code:

Activate

License Later

"Online Activation" is the preferred method but might not work if you use a proxy server to access the internet.

The option "Web" gets you directly to a website that allows you to create the activation code yourself.

With "Email Request" an email gets sent to register@coolOrange.net and you get your activation code via email. Before you can click the Activate button you need to enter your email address.

The last two options require you to enter the received activation code in the field of Step 2 and click **Activate**.

Use Trial

If you click **Later** in the Activate dialog, powerJobs will continue in trial mode.

Trial Version

There is no difference in functionality between the trial version and the fully licensed product. The only difference is the licensing screen that appears for an unlicensed product when the first job is started after a restart of the job processor

Once you activate the product, this licensing screen will no longer appear..



Related

- [powerJobs](#)





03. Getting started

1. [Overview](#)
2. [Creating a PDF from a Vaultfile](#)
 - 2.1. [Select a Vaultfile](#)
 - 2.2. [Create PDF](#)
 - 2.3. [Job Queue](#)
 - 2.4. [Job Processor](#)
 - 2.5. [Result](#)
3. [Related](#)

Overview

This section gives you an example of what you can do with some simple clicks by using powerJobs

Creating a PDF from a Vaultfile

With powerJobs you can easily do different things, for instance creating a PDF-file from a Vaultfile (iam, ipt, idw or dwg).

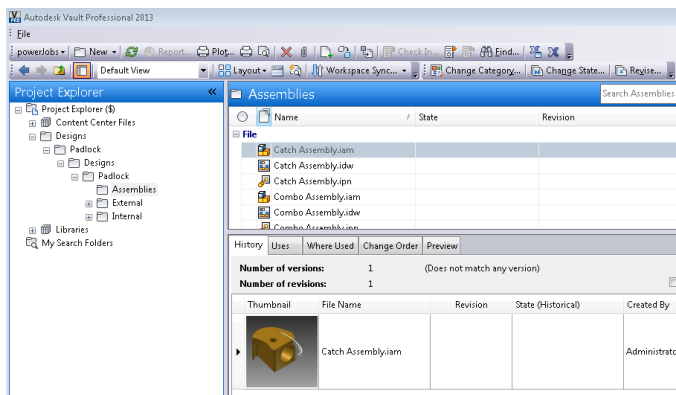
This is very simple because powerJobs offers you the possibility to do this by using a menubutton powerJobs -> Create PDF.

So all you have to do is:

Select a Vaultfile

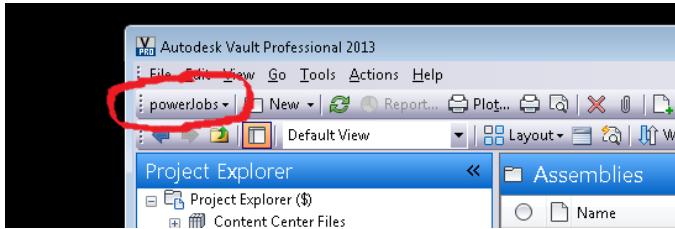
In this example we have selected the "Catch Assembly.iam", after this the powerJobs-button will be enabled.





Create PDF

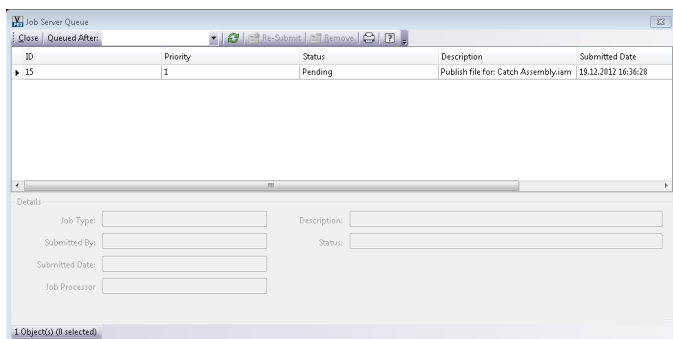
After the Installation of powerJobs you should see now a button "powerJobs", just click on it and select "create PDF".



if you don't see this button then you have to reset the toolbars: Tools->Customize and reset all of them, then close the window.

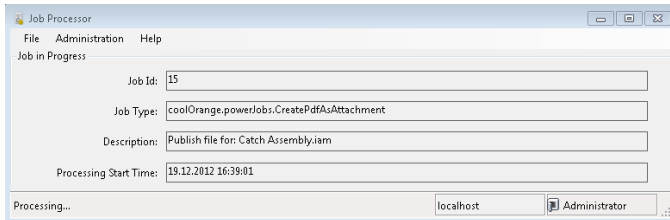
Job Queue

When you open now the Job Queue (Tools->Job Queue) then you'll see that your job for creating a PDF is there



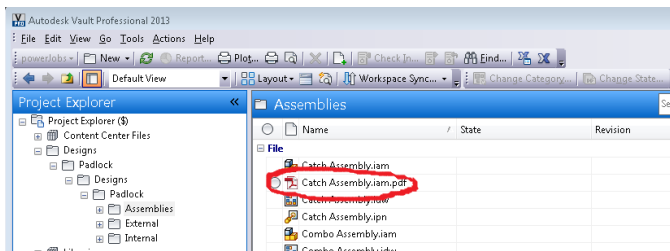
Job Processor

To start this job you have to run now the Job Processor. You can easily start the Job Processor by clicking on the 1st shortcut of powerJobs on your desktop. After this you can see that your job is now beeing executed:



Result

Please wait until the Job Processor has processed your job. Then you can exit the Job Processor (File->Exit). When you refresh the Job Queue then you should see that your job is not more there. Now you can turn to Vault and refresh the explorer there. You should see now your attached PDF as in our sample:



With powerJobs you can certainly do more and different things than this. You can also create your own jobs, or you can use other jobs from powerJobs, for example when you want to create dwg or dwfx files or you can use your own via by LifecycleEventEditor,...

Related

- [powerJobs](#)





04. Features

1. [Overview](#)
2. [Summary](#)

Overview

This section describes how to add existing jobs to powerJobs and how to execute them.

Summary

The traditional way to generate jobs for Vault is by using some complicated Software Developer tool and create .Net dlls. With powerJobs it is simply a matter of writing a textfile containing the new job's script. Once you have created a new script with a cool job, two things are important to know:

1. How to add the new job to your Vault Installation
2. How and when can you execute the new job

See the following sections for the answers.





Adding Jobs

1. [Overview](#)
2. [Details](#)
3. [Adding a job to the job directory](#)
4. [Add the jobname to the config file](#)
 - 4.1. [Enhanced job processor](#)
5. [Verify that the job gets found](#)
6. [Note:](#)

Overview

Describes how to add a new job to powerJobs written in the PowerShell language.

Details

Once you have written a new job, you need to add it to the Jobprocessor. Let us assume your job is contained in a textfile called myCompany.myJob.ps1 There are two steps to perform:

1. Add the file to the powerJobs job directory
2. Add the jobname to PowerJob's config file

Adding a job to the job directory

All the jobfiles must be placed in C:\ProgramData\coolOrange\powerJobs\Jobs You can access this directory by double clicking on the powerJobs configuration Icon on your desktop or by using the powerJobs Configuration shortcut from the Start Menu. Now copy your jobfile to the directory.



Add the jobname to the config file

Open up the powerJob's vcet config file in a text editor .e.g notepad or an XML editor like XML Notepad.

The config file can be found under C:\ProgramData\Autodesk\Vault
2014\Extensions\coolOrange.PowerJobs.Handler\PowerJobs.vcet.config

Once you have the file open, scroll down until you find an entry named <extension>.

Inside this entry you create the entry for your new job, it should look like this:

```
<setting key="some unique entry" value="name of ps1 file without extension"/>
```

So in our case with the filename myCompany.myJob.ps1 the entry looks like

```
<setting key="JobType6" value="coolOrange.PowerJobs.PowerJobHandler"/>
```

Now save and close the config file.

Enhanced job processor

The enhanced jobprocessor has its own configfile in which you have to add the powerJobs jobs. In the standard installation you gonna find it under '

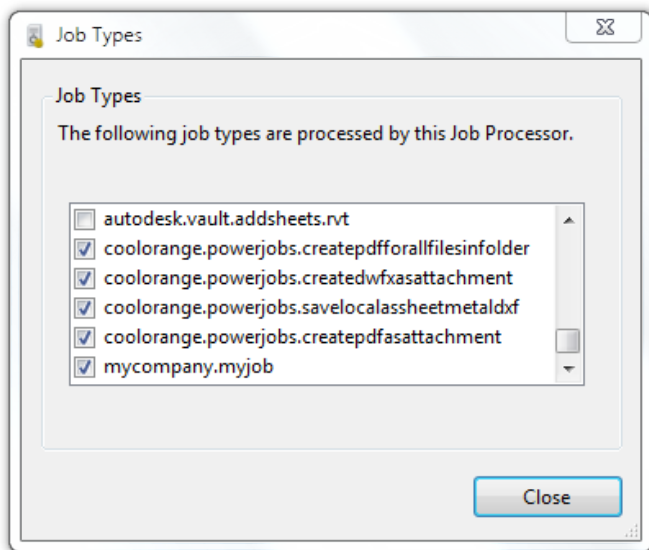
C:\ProgramFiles\Autodesk\VaultProfessionalxxxx\JobProcessor '.

Verify that the job gets found

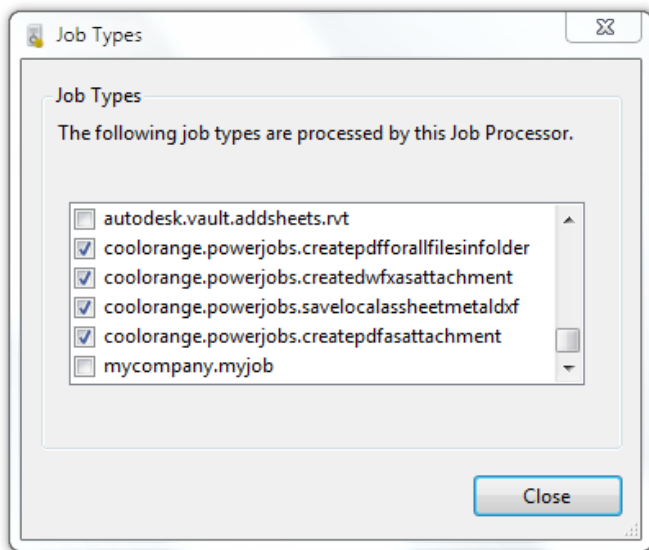
As a last step you must verify that everything works correctly. To do that you should start the Autodesk Job Processor. If your Job Processor is already running, please exit the program and restart it.

Open up the JobTypes dialog under Administration->Job Types... and scroll down. You should see your new job like this:





If you get the following dialog, your entry in the config file is correct, but powerJobs has some problem finding the ps1 file in the Jobs directory:



You should verify that the ps1 file exists and that there aren't any spelling errors in the config file entry.

Note:

Try to change the config file always with full administration rights or without. Never swap between them, afterwards there could be an issue, where the Jobprocessor shows other job types than the current config file.

If you want to test a new job, but you don't want to wait 10 min till the Jobprocessor begins to work, just click in the dialog file-> pause and then file->resume. Now all your waiting jobs start to work.





ERPJob

1. [Overview](#)
2. [Details](#)
 - 2.1. [Explanation of the cfg.xml](#)
 - 2.1.1. [Config](#)
 - 2.1.1.1.1. [Path](#)
 - 2.1.1.1.2. [Mapping](#)
 - 2.1.1.1.3. [Fileformat](#)
 - 2.1.1.1.4. [Note:](#)
 - 2.2. [The export script](#)
 - 2.3. [The mighty module behind](#)
 - 2.4. [The ERPAddin](#)
 - 2.5. [Related](#)

Overview

Here you get an introduction into the ERPJob coolOrange.powerJobs.export and the ERPAddin that is available in the attachments below.

Details

The coolOrange.powerJobs.export provides a simple, configurable and clean way to export your articles (items), when it is necessary. It includes 4 parts:

- First is the coolOrange.powerJobs.export.ps1 powershell script, where all the information from the item and its BOM get collected and written to a file. You can find this job in the job folder of powerJobs 2013.
- Here you also find the erp_configuration.xml file. Where you set the properties that get exported, where they get exported and in what format.



- The 3rd part is the coolOrange.powerJobs.ERPHelper.psm1, where most of the functions are deployed.
- The last thing is the ERPAddin. With it every action that gets performed on items will release a job, on default. So your items always get updated, when someone updates a property, changes lifecyclestates, deletes an item, adds a new one or assigns a new item.

Explanation of the cfg.xml

The first thing to understand, is how to do that. That's simple and the same like for any other job. You have to place the job in the lifecycle events. For more details read topic [EventEditor](#). The only different thing is that you have to add your job in the "Item" tab instead of the "File, Folder and CostumEntity". Or you use the ERPAddin but that will without customization create a Job for many actions you execute on your items(articles), if you are not making some restrictions in your jobs. This is explained later on.

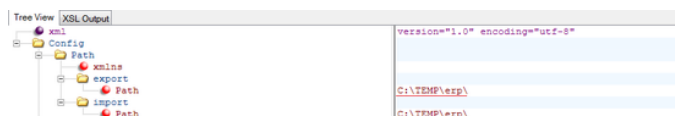
Config

The heart of the coolOrange.powerJobs.export is the erp_configuration.xml file, here you decide the export format(xml,csv), what fields should get exported and how the columns(csv) or porperties(xml) should be called then.

You should use the [XMLNotepad](#) to follow our explanations in the following part.

Path

So let us look at the erp_configuration file. The first thing we see is the root Config, it includes Path(I forgot to mention that earlier, here you can decide where you deploy your export) . Just click on export you should see now the path attribute, click on the path on the right side and you can change it from "C:\TEMP\erp" to what you want.



Note: Make sure that the path exists, the job will only throw an exception if it cant follow the path.

Mapping

The mapping is the part that decides what will be exported from your Vault and then deployed in your file. In the mapping you find the cols, each of these cols represent one column in an csv file. A col includes the mapping from the vault to a file,that´s the Vault attribute and from an erp system output (csv,xml) to the vault, that is the ERP attribute. So you write in your Vault attribute what itempropertie should be exported and the ERP then defines the column name where the itempropertie value gets written. To give you an exaple you write in the Vault attribute "Author" to export the author propertie



and in the ERP attribute "Banana". After exporting you will find the "Author" information, in Banana column.



Note: You can make define cols you want. You have to write the **System Propertiename** in the Vault propertie. You can find the System Propertiename in the Vault under Tools>Administration>Vault Settings then go to the Behavior tab, there click on Properties. There you see all your defined or predefined properties, now right click on propertie name and choose there customize view>Fields. You should see now a window with an combobox named "Select available fields from:", click on it and select Propertie Definition Values. Here you can selecet the available field "System Name", add it to the "Show these fields in this order:". Now press ok and you can read the system name of your popertie.

Fileformat

Here you can choose like in the Mapping and Path your fileformat, there is only CSV_Parent and XML available in the moment.

Note:

There are sometimes settings for the import function, you can use the import function, that one hasnt a real finished concept.

The export script

In the beginning of this script is the obligatory debugg if-clause, like in any other coolOrange.powerjobs script. You can use it to get a connection to the Vault to debugg you changes in this file or copy it and use it in your own job for debugging.

Here the information for the export get collected and then written to a file. If the job got realeased by the lifecycleevent, then it searches the Item in the Vault via the ItemId, if it got realeased by the ERPAddin it will search the Item via ItemNumber, because it needs the number to write even when the file got deleted an export.

The mighty module behind

The coolOrange.powerJobs.ERPHelper.psm1 includes all all functions for the export Jobs. You are free to use them in a other job or even to customize them. You find in the module some comments how the functions are working.



The ERPAddin

You can download the ERPAddin in the attachments below and for the brave users we provide also the sourcecode of the ERPAddin, so you can also customize that one. You have to deploy the addin folder in this folder: C:\ProgramData\Autodesk\Vault 2013\Extensions\

The ERPAddin will release after edit, delete, add, assign, change state, rollback item a job in the job queue. You should try then to not have a lifecycleevent with a job, if you arent customizing the export or the addin.

The first way for customization would be to add an if to the export job, so that it gets released from the addin and from the lifecycle events, but it controls if it was released by the addin and then it will shut down itself. So you can handle that you have jobs for things you dont want.

For the solution via the script we have to understand \$action. \$action will provide on default the information what action released the new job via the addin, that includes "Add","Delete","Edit","StateChange"(which is the lifecyclechange),"AssignItem","StateRollback". So we can just control in the beginning of our job, if we even want to execute now the export. We do that after:

```
$action = $vault.Job.Params(...)
```

With the following line, which checks if \$action is equals to "Add" or "Delete" and etc., if that is so we just stop the script with a nice "exit".

Here the example that will stop our job, when it was started by an "Add", "Delete" or "StateChange" action in the Vault explorer.

```
if($action -eq "Add" -or $action -eq "Delete" -or $action -eq "StateChange"){ exit }
```

That's the fast but not clean solution, because you will still release the job and we are just stopping it from working but it is very easy.

The other way would be to customize the addin but do it only if you have some minor knowledge with c#. We need a Visual Studio Express or better, now just download the sourcecode, provided in the attachments below and go to the function called CommitItemEvents_addJob. Now we insert here nearly the same thing as we would have done in our script, just that we control if its not "Add" or "StateChange" then we will release our job.

The function should look for that likes this:

```
void CommitItemEvents_addJob(object sender, CommitItemCommandEventArgs e){ Item[]
items = null; SetWebSvcMgr(sender); if(_eventName != "Add" || _eventName !=
"StateChange") { if (e.ReturnValue == null) items =
_webSvcMgr.ItemService.GetItemsByRevisionIds(e.ItemRevisionIds, true); else
items = e.ReturnValue; foreach (Item item in items) addJob(e, item);
_eventName = "";} }
```



Then recompile it and deploy the new ERPAddin.dll in your extension folder with replacing the default one.

For Deleting just empty the function DeleteItemEvents_addJob, so it wont be generated a new job for delete actions.

Related

- [04. Features](#)





Executing jobs from the Client

1. [Overview](#)
 2. [Details](#)
-

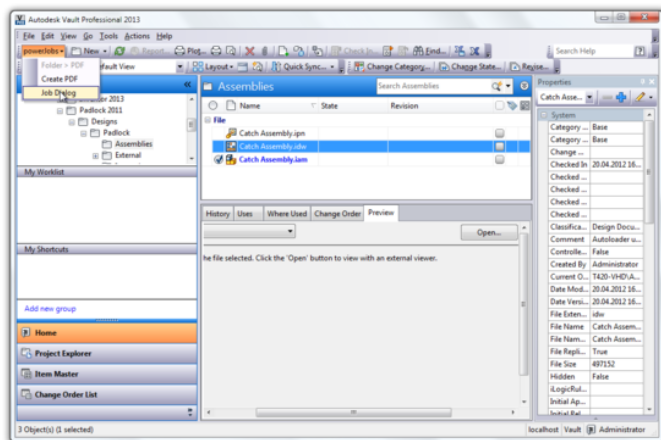
Overview

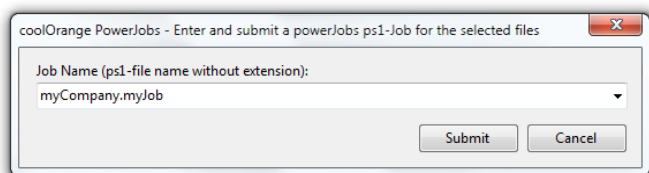
Describes how to execute a powerJobs job through Vault client

Details

Let's assume you have added a new job called myCompany.myJob as described under Adding Jobs. To execute the new job from Vault Client, you open up the powerJobs Job Dialog, that can be found in the powerJobs menu on the powerJobs toolbar under powerJobs->Job Dialog.

The Job Dialog menu item is only enabled if you have selected a file in the main list.





If you click submit, your job will be executed.





Executing jobs via Lifecycle Event Editor

1. [Overview](#)
2. [Details](#)

Overview

Describes how to configure the execution of jobs with the LifeCycleEvent Editor.

Details

Again we're assuming here that you have added a job called myCompany.myJob to powerJobs.

In most of the cases you want to have a job executed after state changes in your workflow. You can do that with the LifeCycleEventEditor which comes as a part of the Vault SDK. Once you have the SDK installed you can execute the LifeCycleEventEditor from C:\Program Files (x86)\Autodesk\Autodesk Vault 2014 SDK\util\LifecycleEventEditor

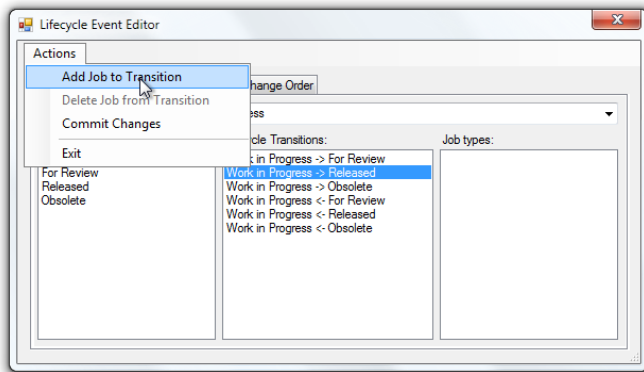
Once you have entered the login information you will see the main screen like below.

Let's assume you want to add a the job during the transition from Work in Progress to Released.

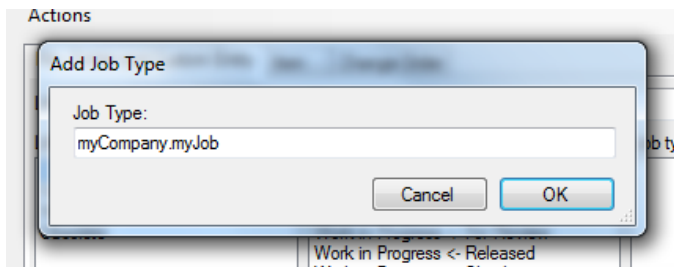
So you activate the **File.Folder and CustomEntity** tab, highlight **Work in Progress** in the Lifecycles states list, highlight

Work in Progress->Released in the Lifecycle Transitions list and open up the **Add Job to Transition** dialog.

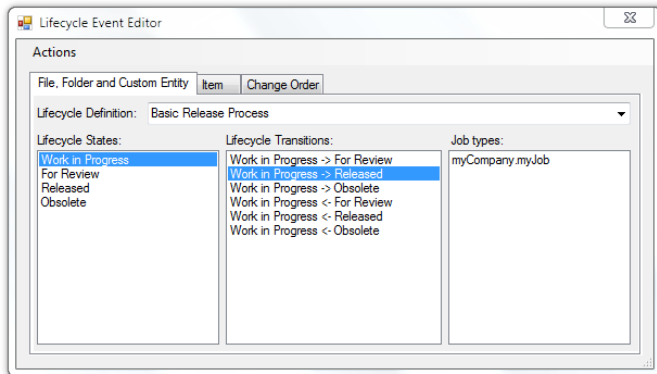




Once the dialog appears enter the name of your job into the edit box.

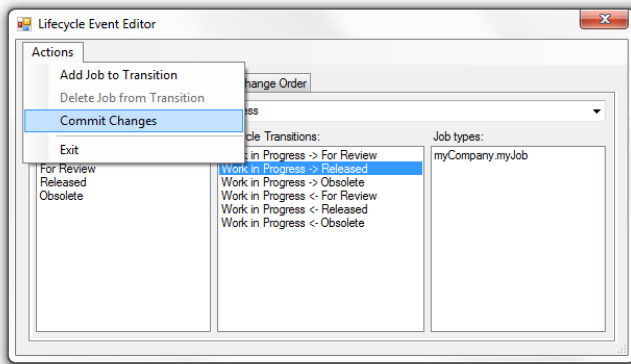


After clicking **OK** the dialog looks like this:



Afterwards open the Actions menu again, click on **Commit Changes** to confirm the new or deleted job for this lifecycle transition.





Now you have added a new job to the Progress to Released transition!





The sample jobs

1. [Overview](#)
2. [Details](#)
 - 2.1. [PDF Creation](#)
 - 2.2. [DWFx Creation](#)
 - 2.3. [Inventor Dwg](#)
 - 2.4. [Create PDF for all files in folder](#)
 - 2.5. [Create SheetMetal DXF](#)

Overview

Describes in detail the sample jobs that are delivered with the product.

Details

powerJobs comes with a set of predefined sample jobs that are ready to use in many cases. They show how you can use powerJobs to create PDF Visualization Files (or other formats) from your CAD documents.

The following sample jobs are delivered with powerJobs

1. coolOrange.powerJobs.CreatePdfAsAttachment.ps1
2. coolOrange.powerJobs.CreateDwfxAsAttachment.ps1
3. coolOrange.powerJobs.CreateInventorDwg.ps1
4. coolOrange.powerJobs.CreatePdfForAllFilesInFolder.ps1
5. coolOrange.powerJobs.SaveLocalAsSheetMetalDxf.ps1

The powerJobs toolbar in the Vault client contains menu items for the execution of sample No.1 and sample No.3



PDF Creation

The jobtype `coolOrange.powerJobs.CreatePdfAsAttachment` creates PDF Visualization Attachments for the following types:

- `dwg`
- `idw`
- `iam`
- `ipt`

If the job is executed for different types nothing will happen. The job's script can be edited to allow other extensions.

You can execute this job from the Vault client when you highlight the file that you want to create a PDF for and then click the `powerJobs->Create PDF` menu command. This will trigger the queueing of the `coolOrange.powerJobs.CreatePdfAsAttachment` job.

Alternatively you can add this job to a lifecycle state transition via the `LifeCycleEvent` Editor.

During its execution the job will download the CAD file it should create a PDF for and all the dependents that are necessary to open file.

Then a PDF file with identical filename but extension `.pdf` will be created, uploaded to Vault and linked as a Visualization Attachment.

Again, if you want to use a different rule to name the pdf file you can edit the job's script to do so.

To get a better understanding of what's going on in detail please read `Anatomy of a powerJobs` script.

DWFX Creation

The jobtype `coolOrange.powerJobs.CreateDwfxAsAttachment` creates dwfx files, but not as Visualization Attachments, for the following files:

- `ipt`
- `iam`

The dwfx files will have the same name as the CAD file but with the extension `dwfx`. They are placed beside the CAD files but have no links to them.

Inventor Dwg

`coolOrange.powerJobs.CreateInventorDwg` creates an Inventor Dwg file for following types:

- `ipt`
- `iam`



It is meant as an example to demonstrate how one can use the SaveAs function in Inventor to create different file formats.

Create PDF for all files in folder

The script `coolOrange.powerJobs.CreatePdfForAllFilesInFolder` expects a folder id as job parameter. It can be excuted in the Vault Client through `powerJobs->Folder > PDF`, but only if you have highlighted a folder in Vault. It works only for the following types:

- `dwg`
- `idw`

When the job executes it will create a separate `coolOrange.powerJobs.CreatePdfAsAttachment` for each document contained in the Vault folder. You can use this job to create PDFs for a large number of documents.

Create SheetMetal DXF

The job `coolOrange.powerJobs.SaveLocalAsSheetMetalDxf` can be used to create dxf files from Inventor Sheet Metal ipt files. If you want to create thos types of dxf files you need to provide some more options and information to Inventor, so that the dxf file can correctly be generated. You can use this sample to learn how to achieve this with powerJobs. The output file is simply written to the `C:\temp` folder.

This script can be executed through the `powerJobs->Job Dialog` command or through the `LifeCycleEvent` editor.

Most likely you will modify the sample to adapt it to your specific needs.





05. Configuration

Overview

This section contains everything about configuring powerJobs.

Related

[Configure powerJobs PDF conversion settings](#)

Describes step by step where you can configure powerJobs.





Configure powerJobs PDF conversion settings

1. [Overview](#)
2. [Details](#)
3. [Illustration](#)
 - 3.1. [The Vault Client](#)
 - 3.2. [TrueViewSetup.dwg & DWG TRUEVIEW](#)
4. [Examples](#)
 - 4.1. [Configure Plotstamps:](#)
 - 4.2. [Configure Plotarea:](#)
5. [Related](#)

Overview

Describes step by step where you can configure powerJobs.

Details

powerJobs gets its settings from three different locations. This page offers you an illustrated description of where they are and two examples what you could do with it.

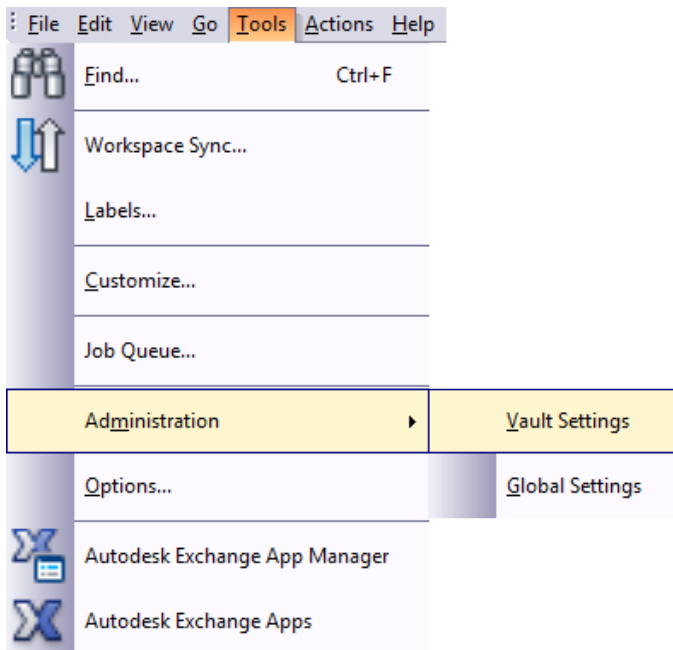
Illustration

The Vault Client

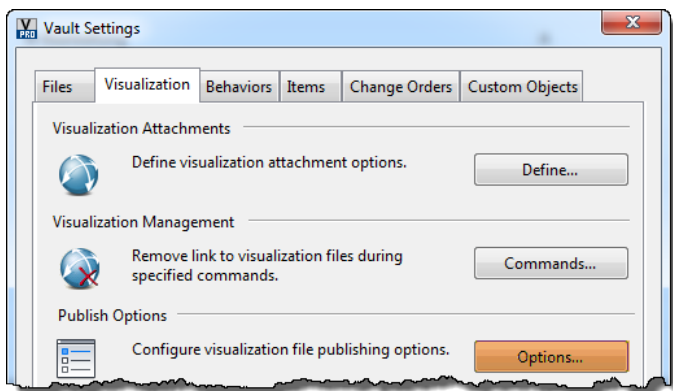
The first location is in the vaultclient where powerjobs is installed.

Go to tools - administration - vault settings



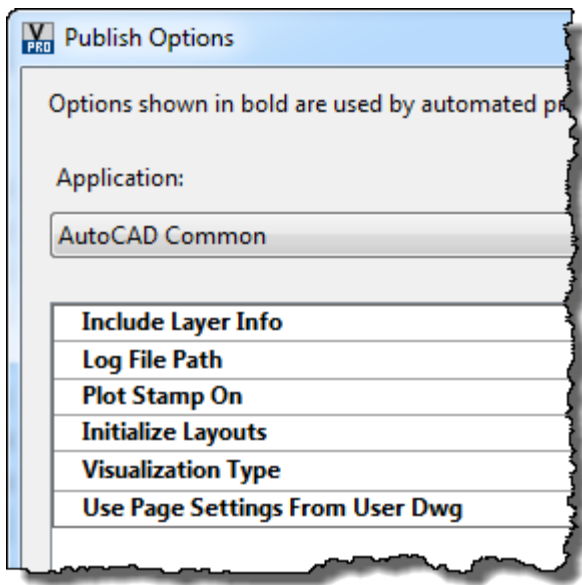


In the tab 'Visualization' choose Publish Options.



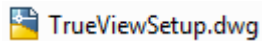
There are some bold entries. These are used by powerJobs.





TrueViewSetup.dwg & DWG TRUEVIEW

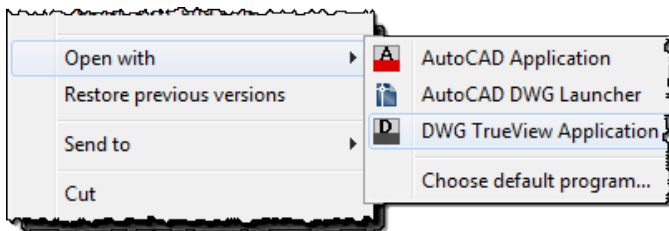
powerJobs has its own



You can find it under

C:\ProgramData\Autodesk\Vault 2013\Extensions\coolOrange.PowerJobs.Handler

Open it with TrueView



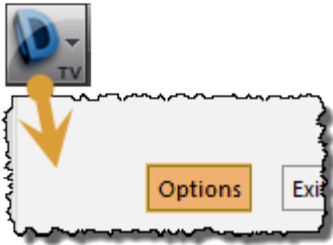
Examples

Configure Plotstamps:

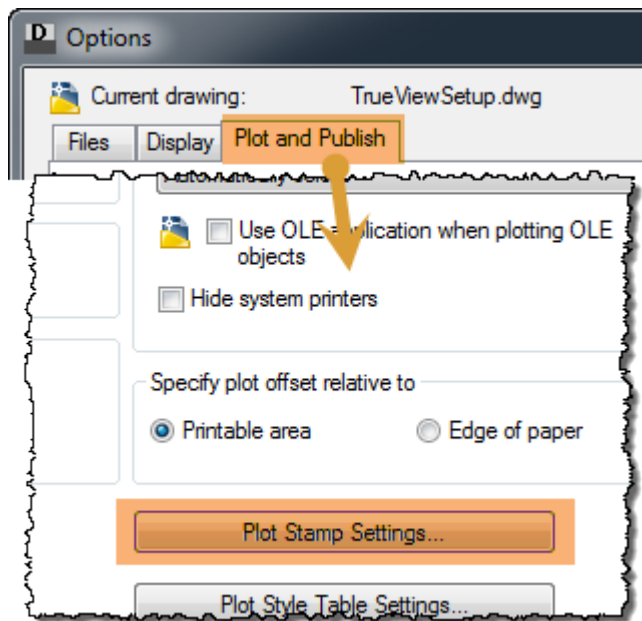
To configure plotstamps you have to start 'DWG TrueView' at first.

Click on the button in the top left corner of the screen and choose options in the popup.

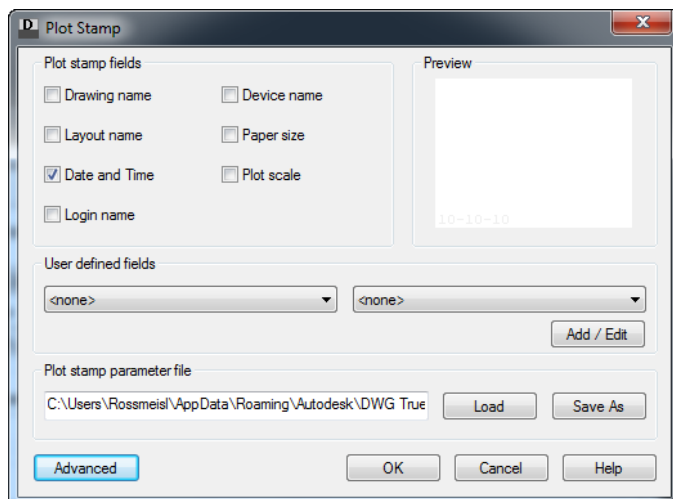




On the options-screen choose the 'Plot and Publish'-tab and open the 'Plot Stamp Settings...'-window

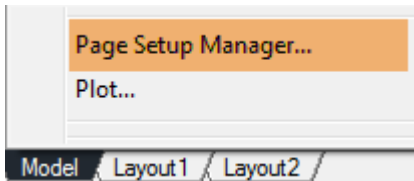


Choose whatever settings you like and click 'OK'.

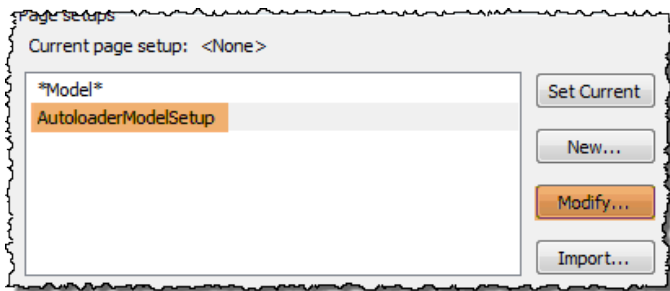


Configure Plotarea:

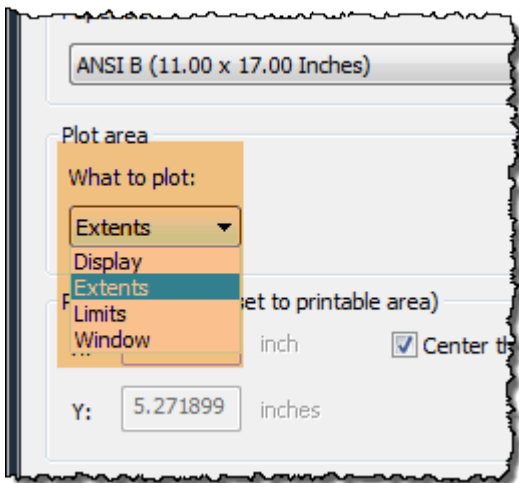
Open the TrueViewSet.dwg with TrueView like shown above. On the bottom rightclick Model and choose Page Setup Manager...



Now modify the AutoloaderModelSetup



In the dropdown 'What to plot:' you can choose e.g. 'Display' to plot just what is on your screen or 'Extents' to plot everything within your extents.



Related

- [05. Configuration](#)

