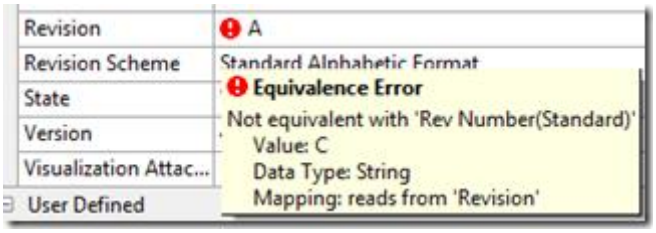
[Matching Vault's Revision to a CAD File's Revision]

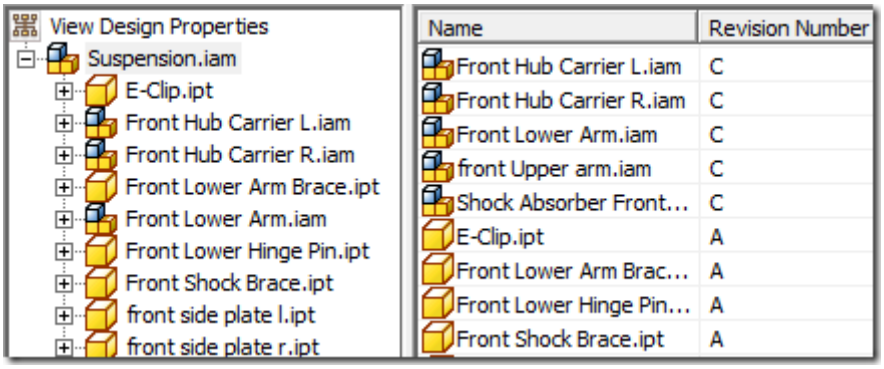
10/14/2010

This is one topic that I've been asked about many time, and perhaps it's time for a deep dive into it. What you're about to see is for Vault Family 2011 and does not apply to Vault Family 2010 products. There was a change in the Vault Properties engine and let's just say its better, more flexible, in 2011 but there is an additional step to take over the 2010 release. In short, we'll need to make a User Defined Property (a.k.a UDP) to expose the Rev from CAD, and then making Vault's revision equal that rev from the file.

So, how do you know when you need to do this? If you've been using AutoCAD or Inventor and you have properties in the files already that hold a Revision value, and you check it into Vault, you may see the error in the image below:

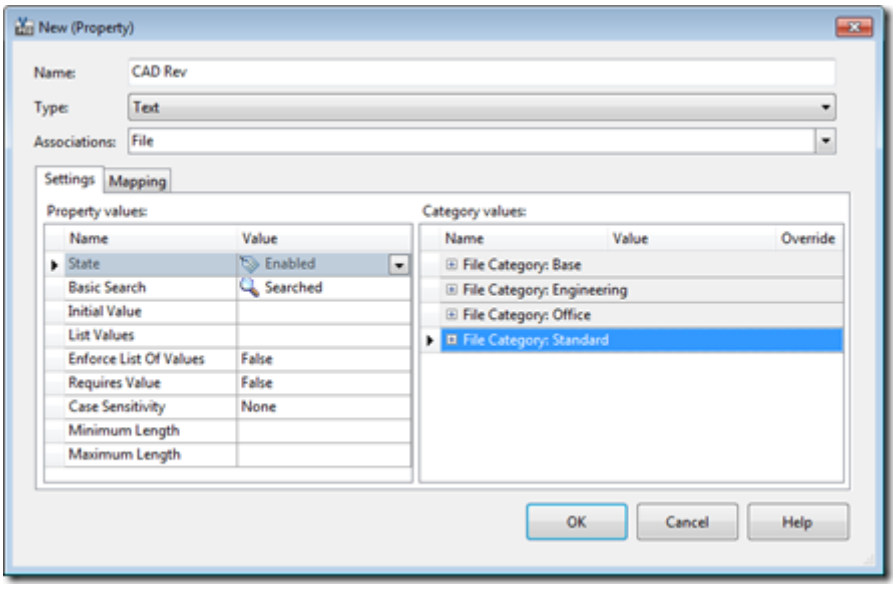


Let's talk about why this is happening. It's usually after categorizing files upon check in to Vault. This typically assigns a Lifecycle Definition, therefore a Lifecycle State. And it also assigns a Revision Scheme, and that Revision scheme – whether Alphabetical or Numeric – has a starting value. Chances are, if you've been using an "honor system" Rev method outside of Vault, the files might not always be at this start value like 'A' or '1'. They may look like the screen cap below, which is a view of an Inventor assembly in which components have a variety of Rev level.

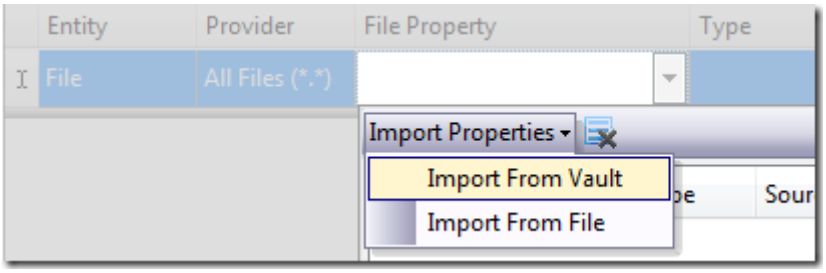


You have a few options. One of which is to accept Vault's starting revision of A or 1 and overwrite what's in the CAD file upon the next synchronization of properties. If that's alright, stop reading here. If preserving the CAD rev level is important, read on…

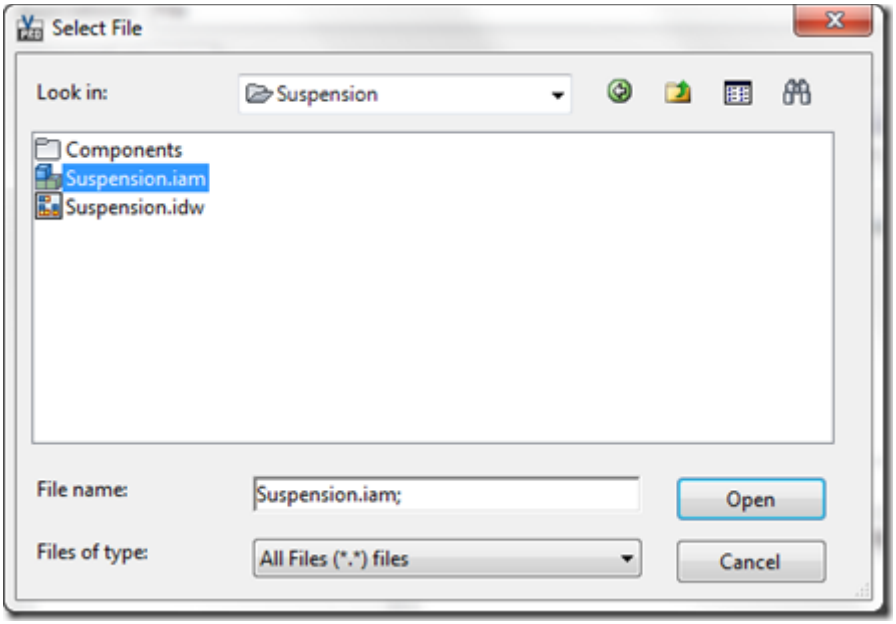
First, log in with an Administrative account. Go to Tools>Administration>Vault Settings>Behaviors tab and click the Properties button. Create a new User Defined Property, I suggest 'CAD Rev' to make this neutral and possibly mapped to Inventor, AutoCAD, etc. Make it Text type and apply it to all Categories.



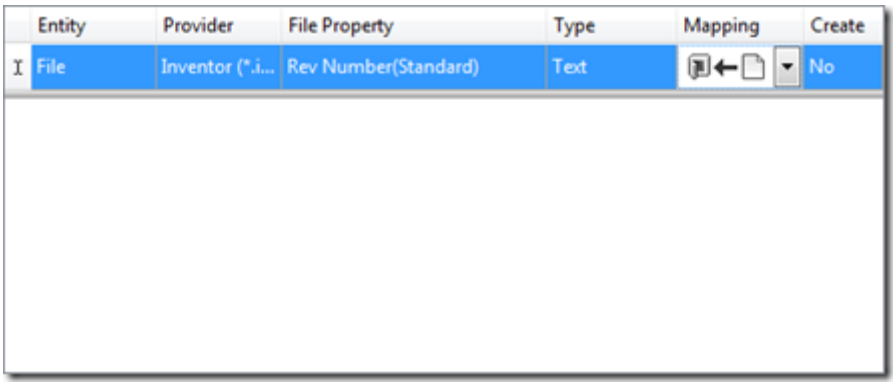
Jump over to the Mapping tab. Add a mapping, select the property drop down and import properties from Vault as below.



In my example, I am selecting an Inventor file, but an AutoCAD file with attributed title blocks or even fields, custom properties would work the same.

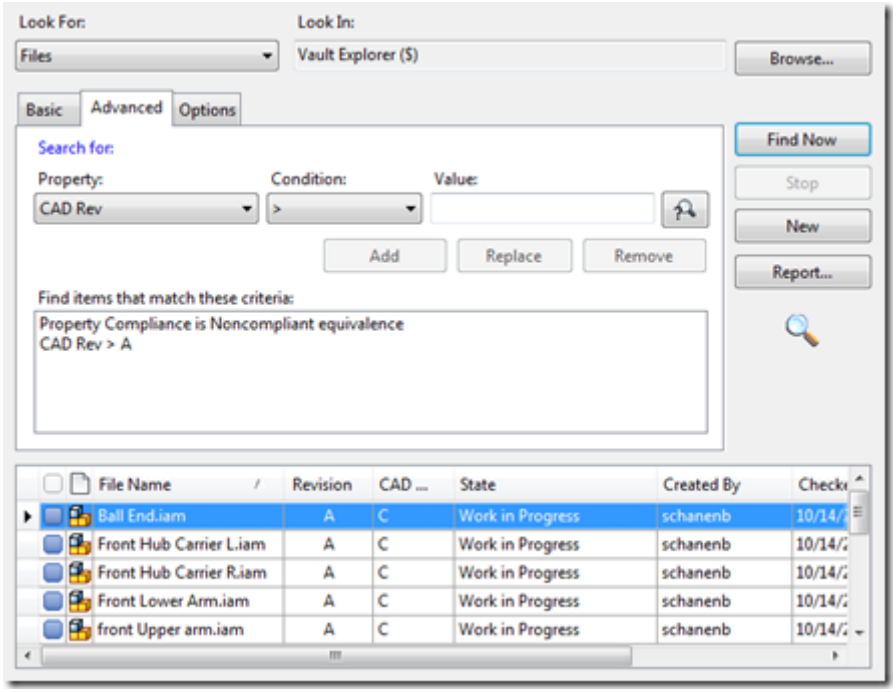


Now, this mapping is a one-way street. All we need to do is get the CAD file revision exposed so we can fast track Vault's rev level to it. It's important to note that Vault will take over Revision Management after that point.

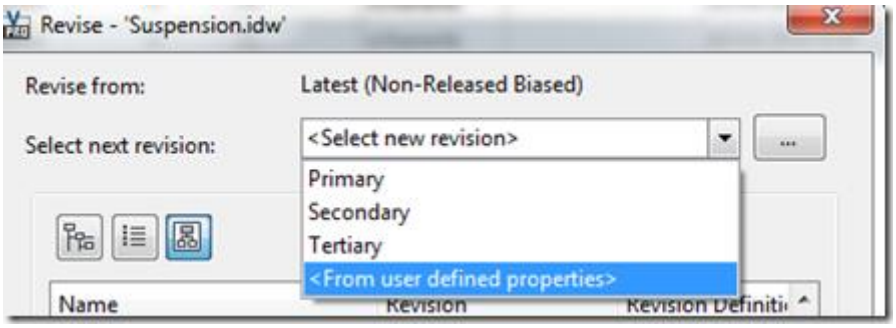


Click OK and close all dialog boxes, return to Vault Explorer. Back to the first image in this post, we had a non-compliant equivalence state, that red bang symbol that's really hard to ignore is there in the Properties grid. You can target files one-at-a-time, or you can use a clever little search trick to isolate these files.

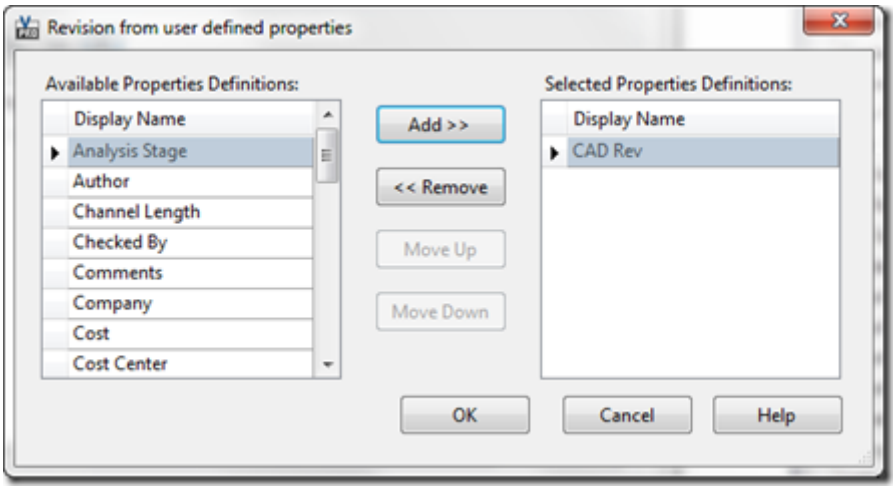
Start a search using the Advanced tab. First criteria is the noncompliant equivalence, and add to that another criteria where your CAD Rev property is greater than the rev level of you rev scheme. In my example and image below, any noncompliant prop and CAD Rev greater than A (using an Alpha scheme) yields the files listed below. If a Numeric scheme, use greater than 1, and so on.



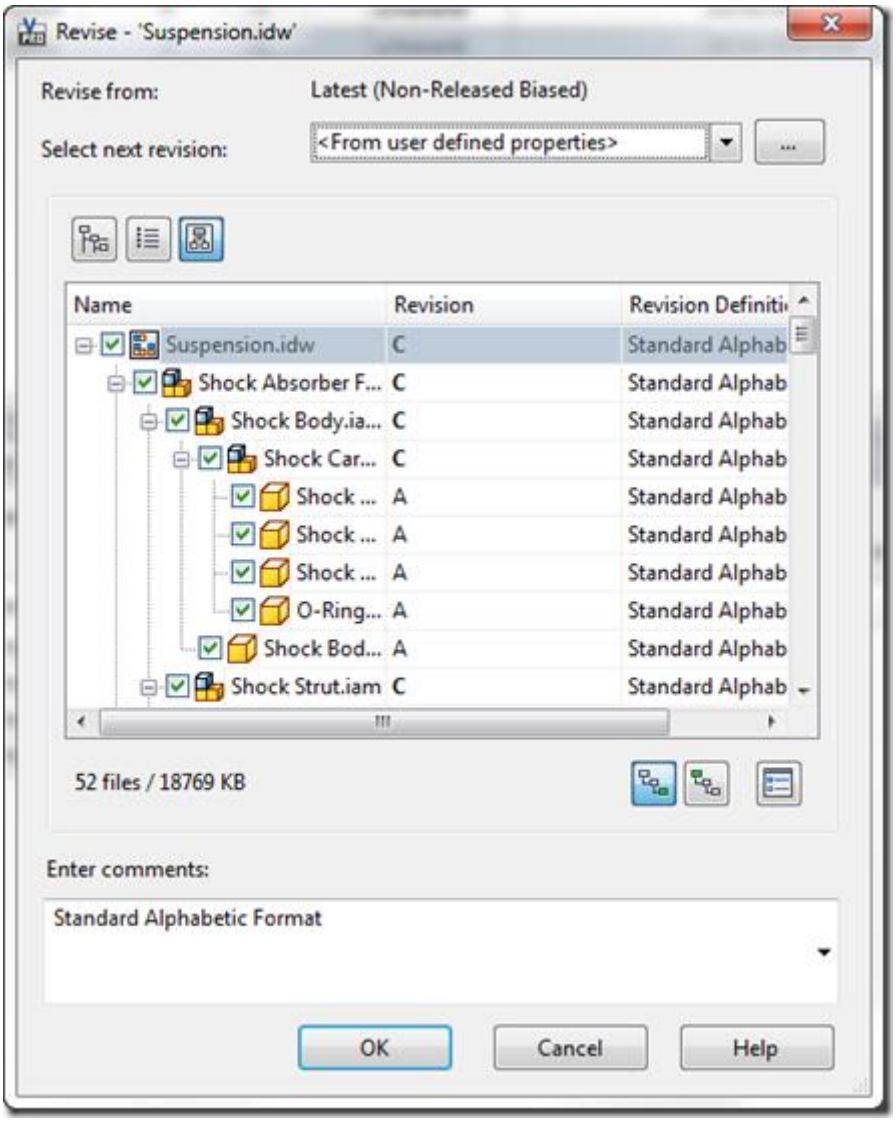
Ok, getting to the good part. Select a file and click the Revise button. At the bottom of the list is an option to Revise from user defined properties.



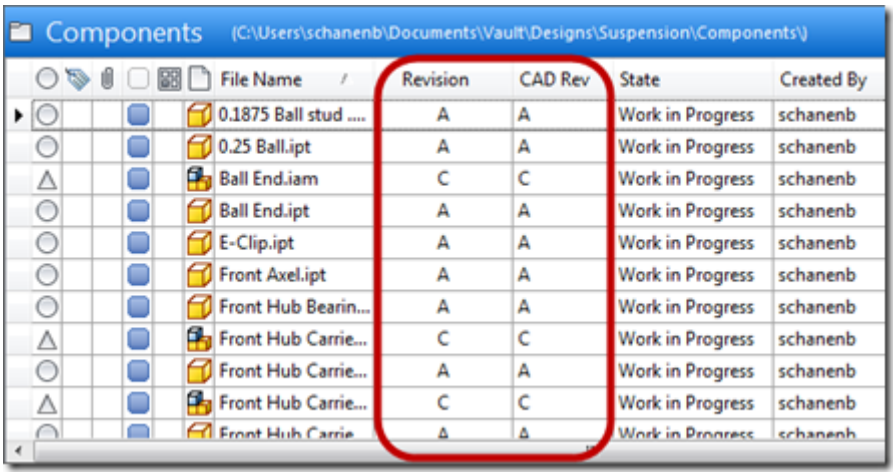
Add the new CAD Rev property from the left to right side and click OK.



The rev value from the CAD files will appear as the new Revision values. Anything that will change will appear as **bold**. Click OK, and your done with this set.



Finally, you can expose the CAD Rev column in any window in Vault, and I suggest this for Admin usage only. Eventually, you can turn this CAD Rev column off once all file rev levels are matched up with Vault. Remember that Vault will take over Revision Management from this point forward.



-Brian Schanen