

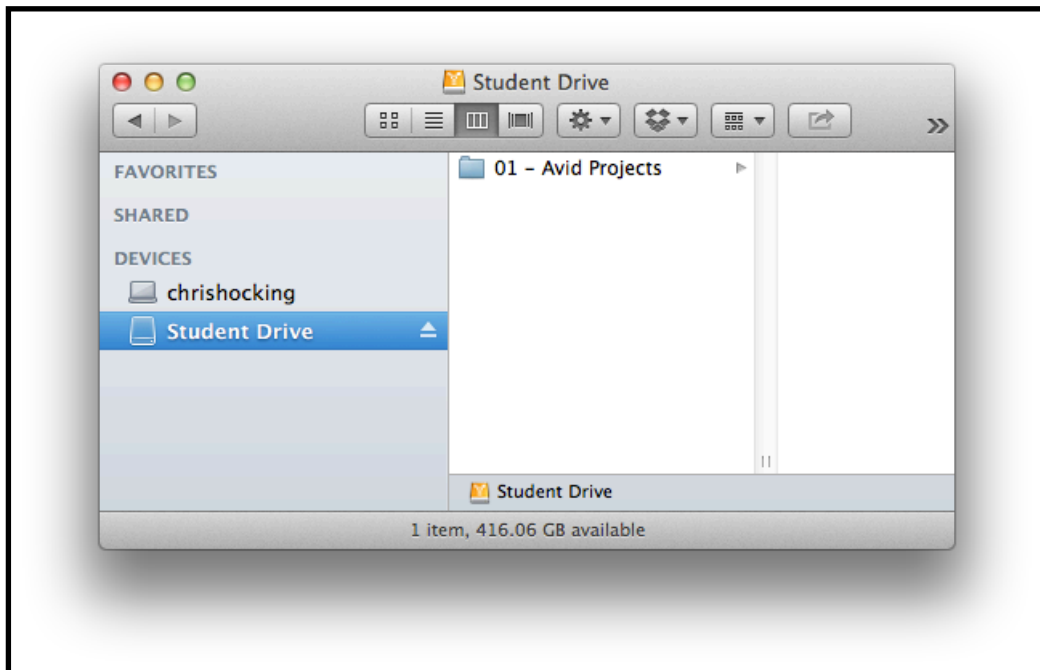
Importing AVCHD Footage into Avid

Prerequisites

- Avid Media Composer 6.5.2
- AVCHD AMA Plug-in 1.2
- Mountain Lion 10.8.2

Step By Step

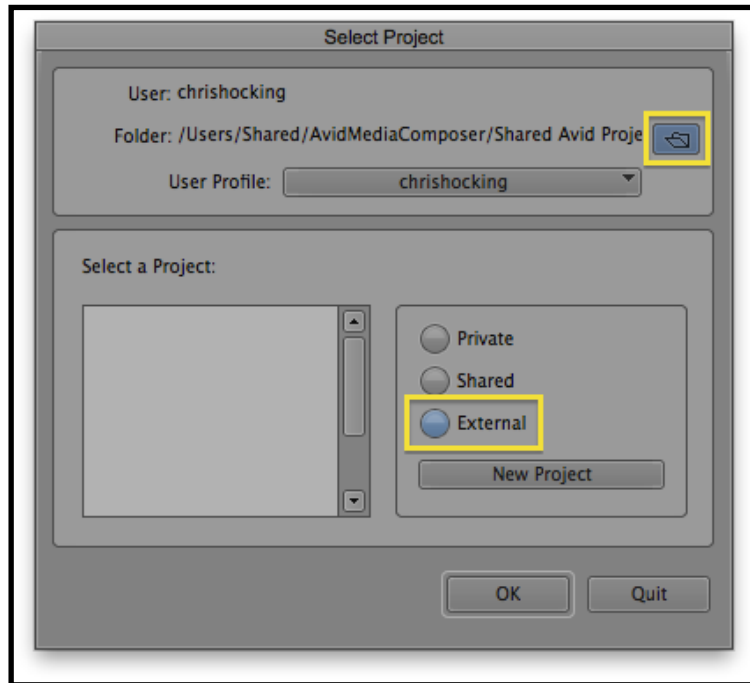
- Plug in your external hard drive. This will be where you store all your Avid Projects and Media. For example, I have plugged in a drive called **Student Drive**. To keep things neat and tidy, I have created a new folder called **01 - Avid Projects** to store all my Avid projects on this drive. You can use the shortcut key **COMMAND + SHIFT + N** to create new folders from within **Finder**.



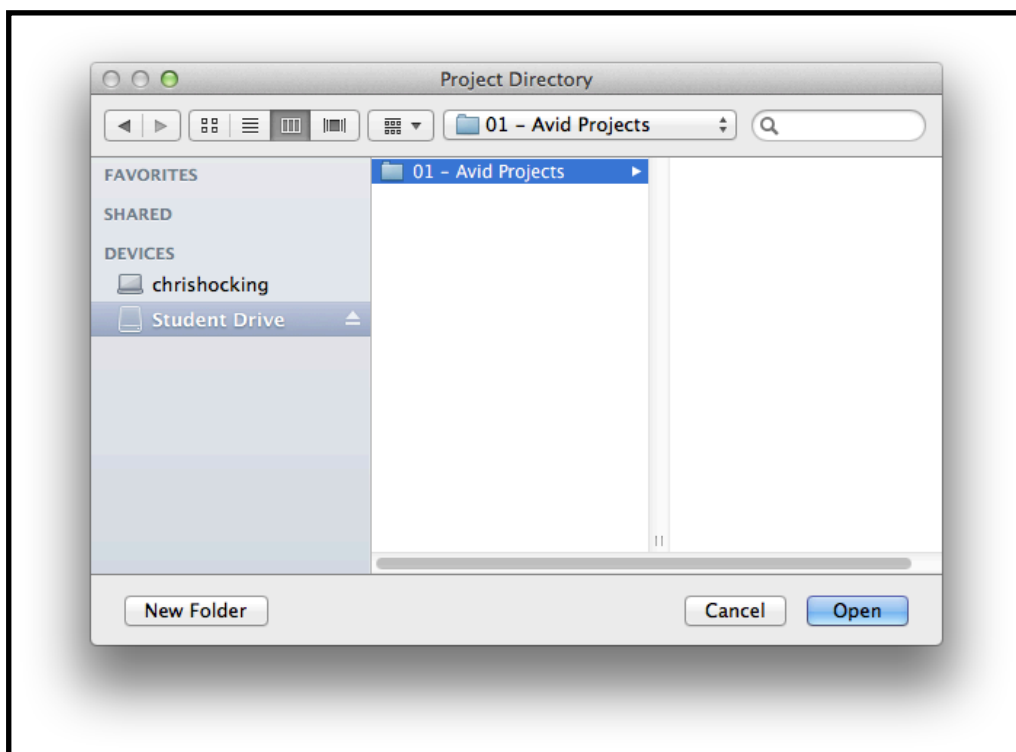
- Open **Avid Media Composer** from the Dock:



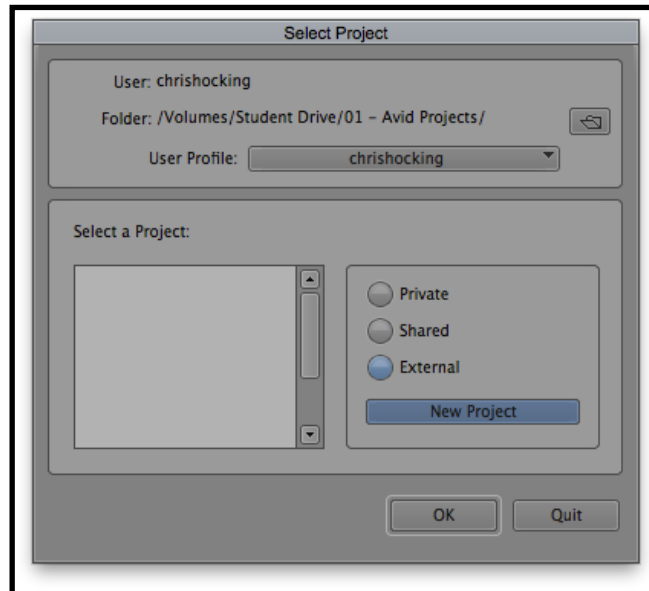
- Tick the **External** button, as we want to save our Avid project on our external drive. Once the **External** checkbox is selected, then click the open icon in the **Folder** section of the window (yes - sadly, this is very unintuitive).



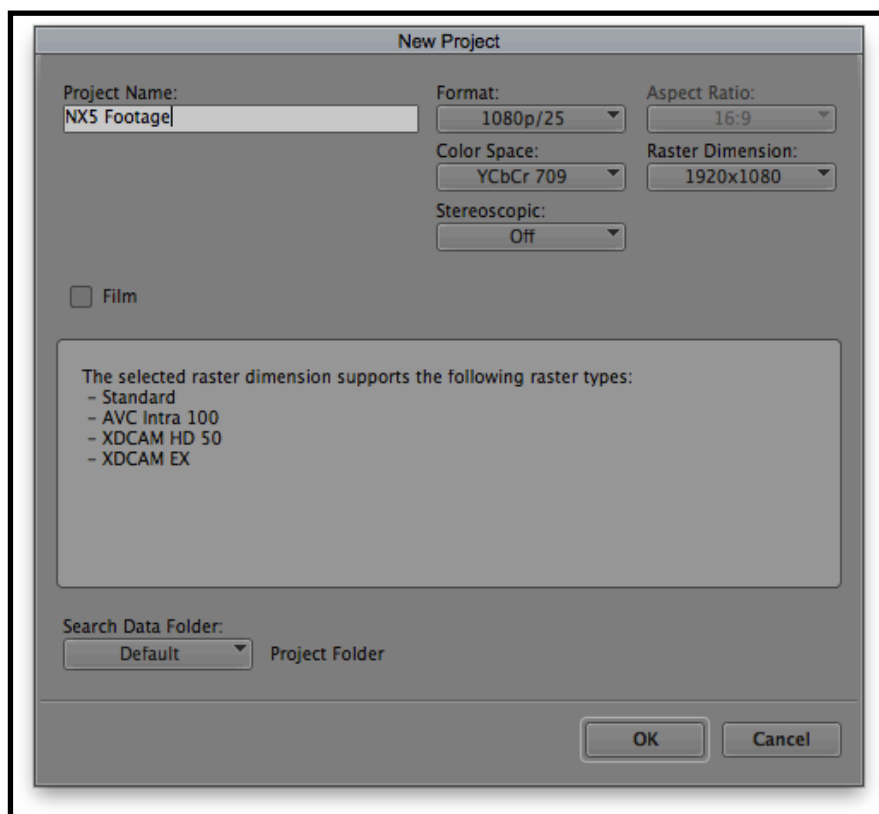
- In the **Project Directory** window then select the **01 - Avid Projects** folder we created earlier and click **Open**.



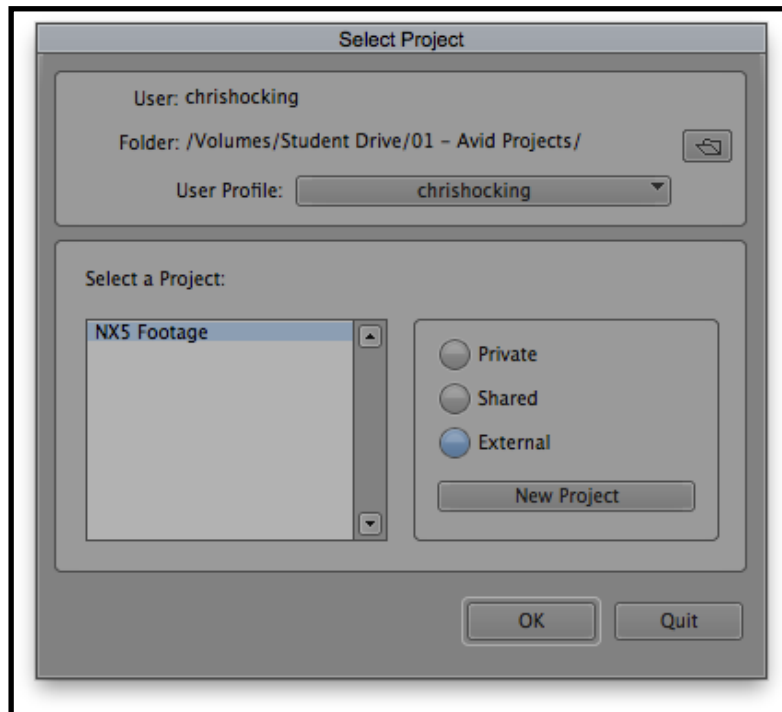
- You can now see in the **Folder** section of the window that the **01 - Avid Projects** is selected. Let's create a **New Project**.



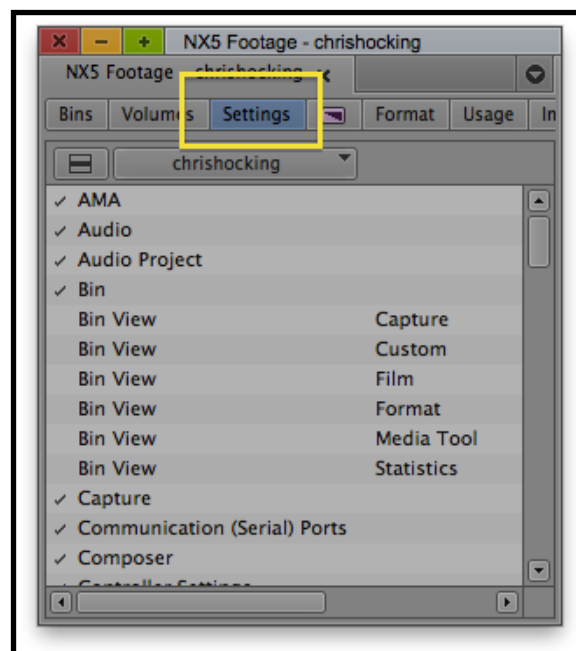
- The New Project window can be a bit daunting at first viewing. However for what we want to do, the default settings will be fine. Just type a suitable **Project Name**, then ensure **1080p/25** is selected from the **Format** drop down. Everything else should be as per the screenshot below. Click **OK** when you're done.



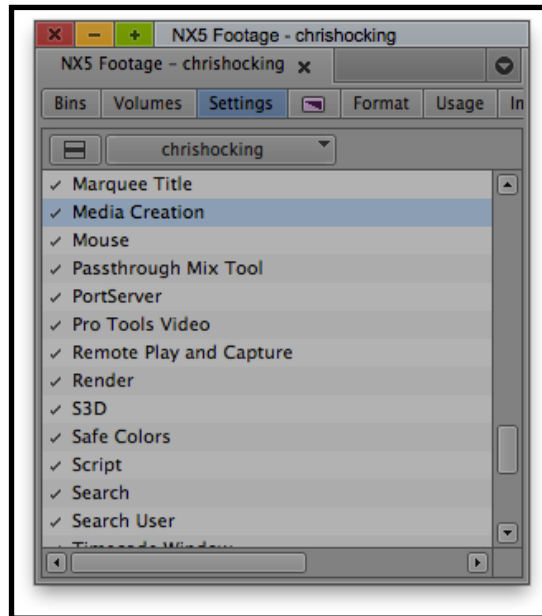
- You can now see that the **NX5 Footage** project has been created, and if you look at the **Folder** section, you can see that it's been created on the **01 - Avid Projects** folder on our external hard drive. So far so good! Let's now open the project by clicking **OK**.



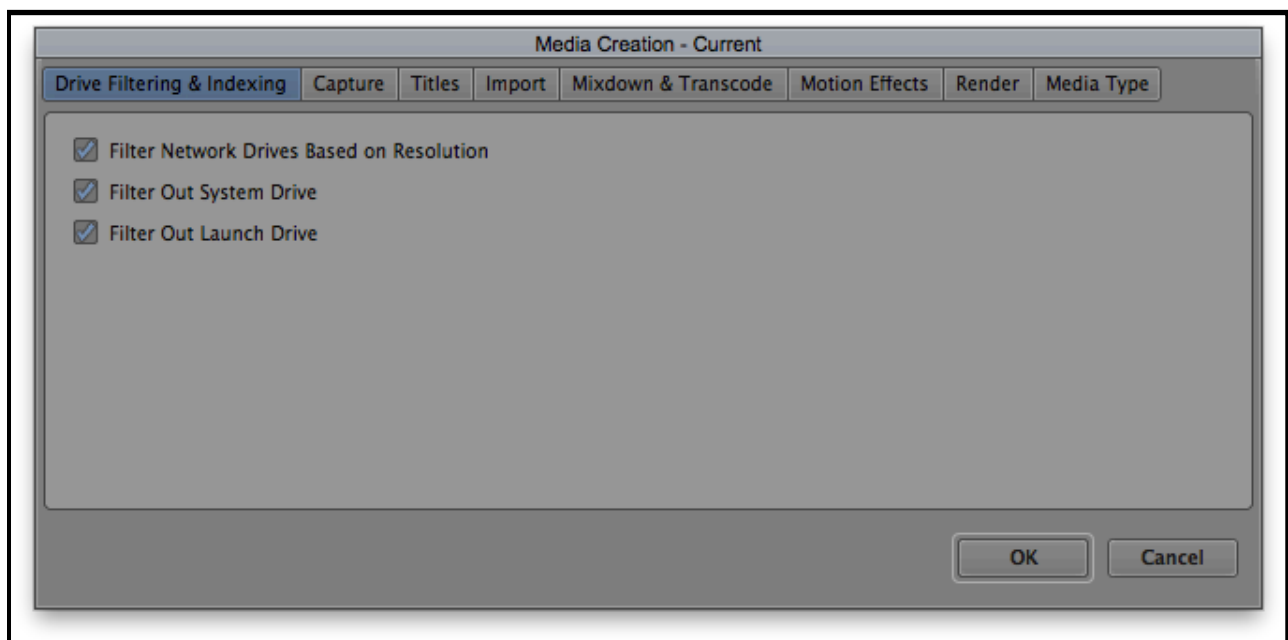
- The first thing you should **ALWAYS** do when you first open a project is make sure all the **Media Creation** settings are correct. Click the **Settings** tab in the main window:



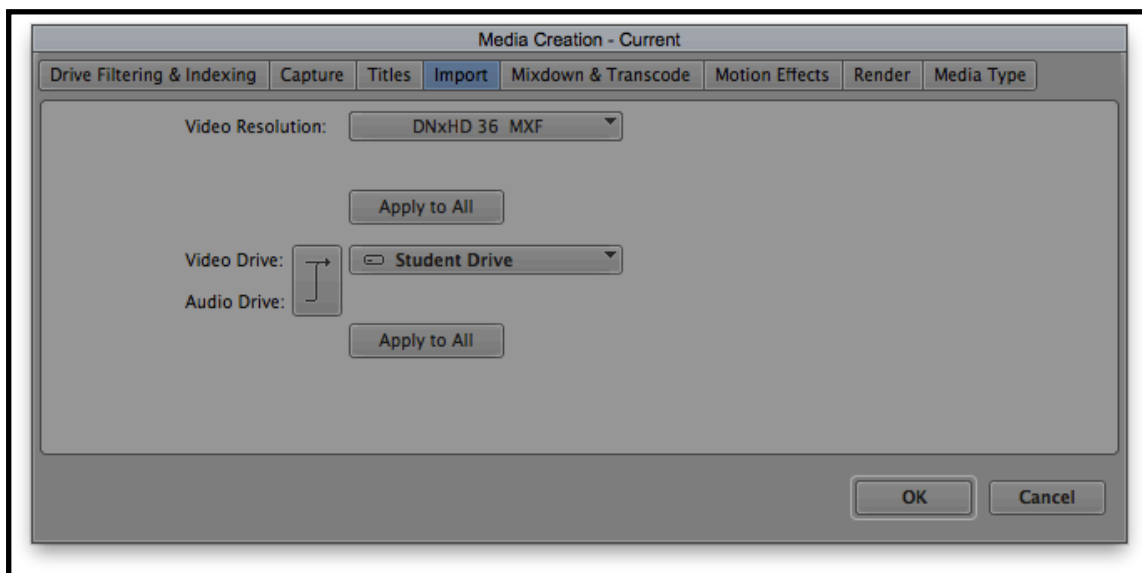
- From the **Settings** tab navigate down to **Media Creation**. The easiest way to do this is just click any item in the menu then type **M** on your keyboard. Double click the **Media Creation** text to open the settings window.



- The first thing I always do is tick the three boxes on the **Drive Filtering & Indexing** tab. This prevents Avid for accessing the local computers hard drive (i.e. the drive that has Mac OS installed), and other random network drives connected to the computer. For the purposes of this project, we want to store **ALL** our media on our external hard drive, so ticking these three items just makes things a little more fool proof.

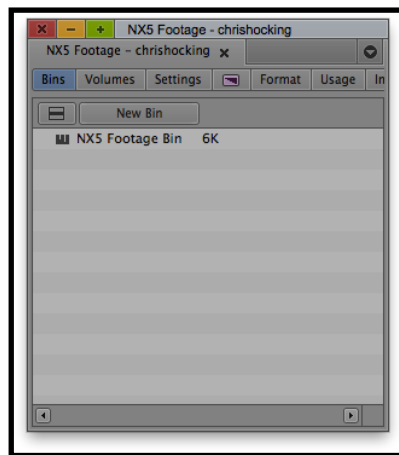


- Then click over to the **Import** tab. This is where you tell Avid where you want to save any files you import (i.e. if you just drag a file from your desktop into a bin). For the purposes of this exercise we will select **DNxHD 36 MXF** as the format (which is a 8-bit, 4:2:2, 36 Mb/sec codex - giving us small file sizes, but still maintaining a really good quality for basic editing). Which Video Resolution you decide on really depends on what kind of work you're doing.
- Make sure that the Video & Audio drive is set to your external hard drive, and click both the **Apply to All** buttons to ensure that the Video Resolution and Video/Audio Drive is applied to all the other tabs (i.e. Capture, Titles, etc.). You can then click **OK** to close the window.



- You are now ready to start bringing in some NX5 footage, but before we do that, I need to explain about a piece of technology called **Avid Media Access (AMA)**.
- **AMA** is a plug-in-based feature in Media Composer, Symphony, and NewsCutter software that enables you to directly edit tapeless media without having to copy or import the footage. It works behind the scenes, automatically linking clips from the device to a bin in your software. You get immediate and direct access to all AMA media just as you would when working with clips stored in the Avid Media Files folder. Essentially, it allows you to use Avid Media Composer in exactly the same way as Final Cut Pro 7 works (i.e. instead of converting or transcoding media - Final Cut Pro 7 simply "links" to existing files on your hard drive).
- For those that have been working on Final Cut Pro 7 previously and are used to the concept of essentially just "linking" to media, AMA probably makes a huge amount of sense - but it might also be a bit confusing as to why it has a special name, and Avid makes such a big deal out of something so simple. Well, traditionally (i.e. until Avid Media Composer 3.5) you always had to CONVERT ALL your media into an Avid Friendly format (such as DNxHD). Even today, most editors convert all their rushes to something like DNxHD 36 due to a wide variety of reasons - but the biggest being, media management. The thing that makes Avid so powerful, and it's big advantage over Final Cut Pro 7, is the clever and powerful way it manages media via the **Avid MediaFiles** folder. AMA basically "breaks" this model - allowing you to store media anywhere you want. AMA is very helpful, fast and powerful, but it can also be dangerous, as it potentially allows editors to be lazy, and not manage their data in a careful and safe manner.

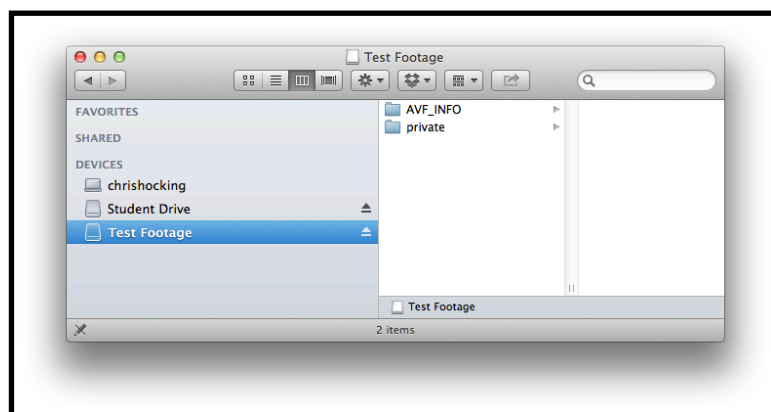
- For now, let's just think of AMA as "linking" to files. By default Avid Media Composer automatically has a setting enabled called **Automatically AMA-link** to volumes. What this means is that each time you mount a drive containing footage that Avid supports, it will automatically create a new bin with the same name as the drive, and AMA link to the files on the drive. For example, if we look in our project currently there is only one empty bin (which was automatically created when we made our project):



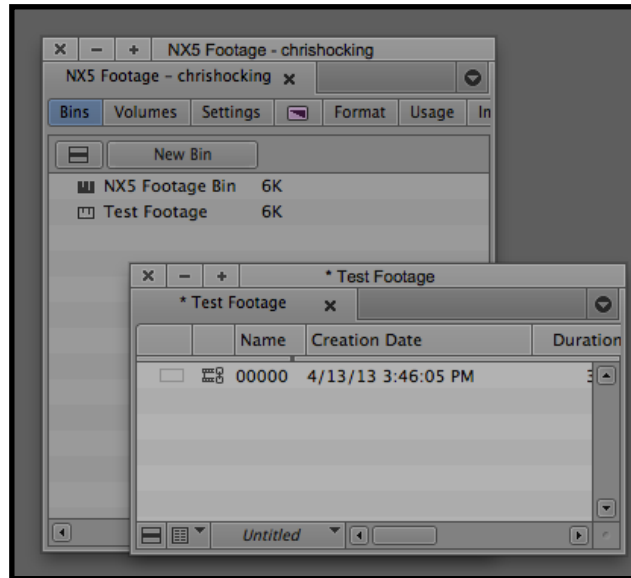
- However, let's mount the DMG file which contains our Test Footage. This DMG is basically an exact clone of everything that was originally recorded on the camera's card - so for the purposes of this exercise, let's just imagine that the DMG file is actually a memory stick from the camera. To mount the DMG on a Mac, from **Finder** simply double click on it.



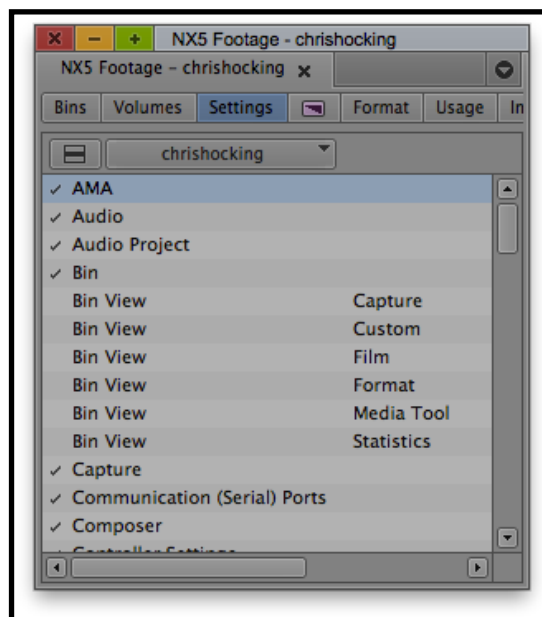
- From within Finder, we'll now see a new drive has been mounted called **Test Footage**. This now appears exactly the same as it would if we actually plugged in a physical card from the camera into the computer.



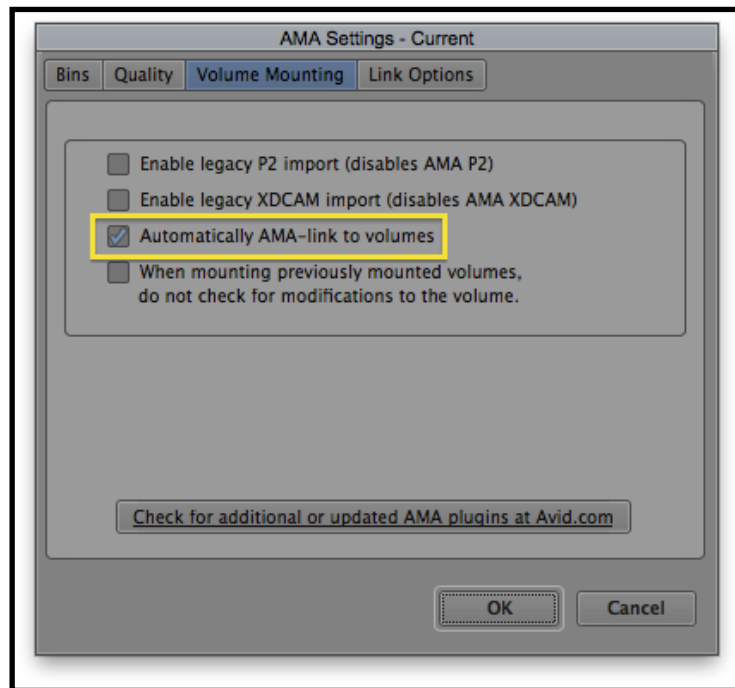
- If you were on Final Cut Pro 7, you would normally use **Log & Transfer** to bring in this footage. However on Avid, with the default settings, the software will automatically bring the footage into a new bin, ready to go. You can work with this footage straight away. If you jump back into Avid you'll see a new bin has magically appeared:



- This feature is very handy for beginners - and does make life a lot easier and quicker, but personally, I find it a bit annoying, that Avid automatically creates a new Bin for you each time you plug in a external hard drive or card. Luckily, you can adjust the AMA settings by clicking **Settings > AMA**.



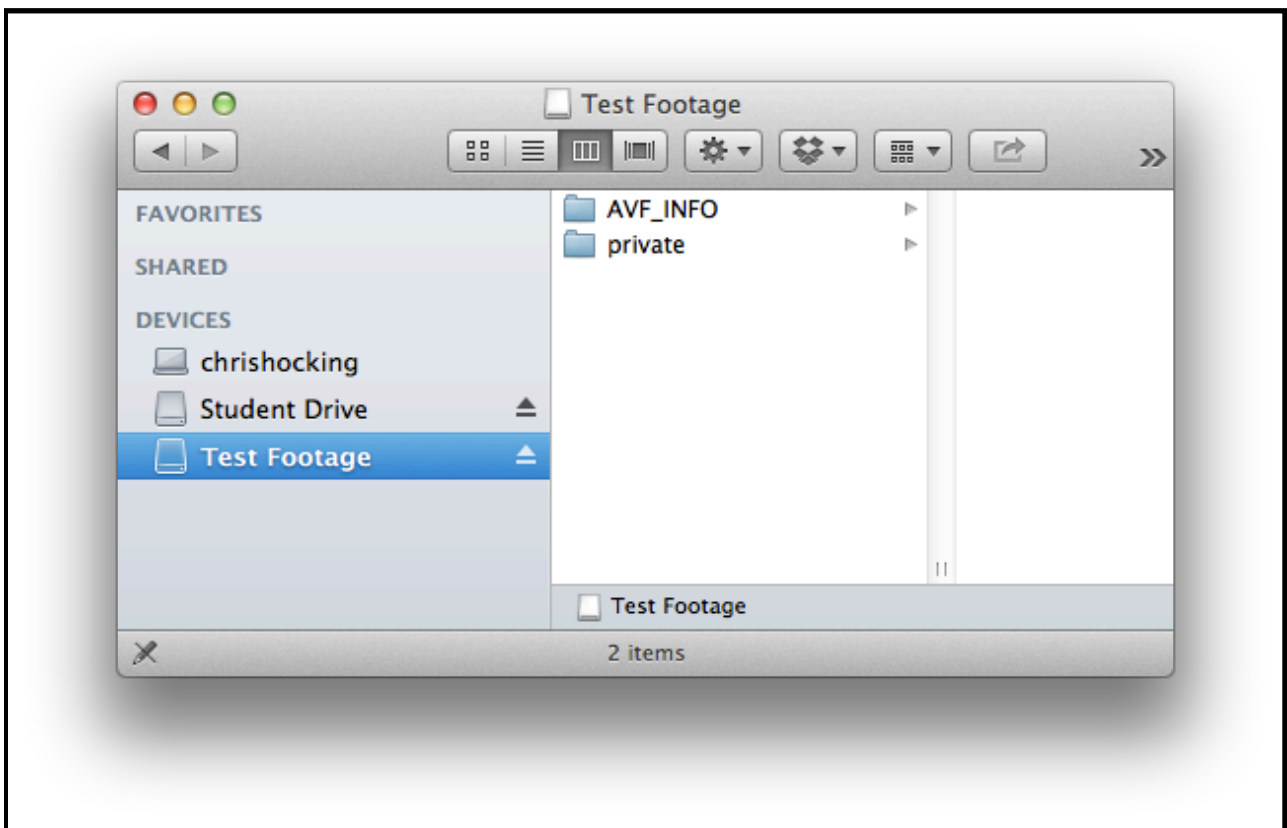
- In the **Volume Mounting** tab, you can then de-select **Automatically AMA-link to volumes**. However, for now, let's just leave it checked, and move on.



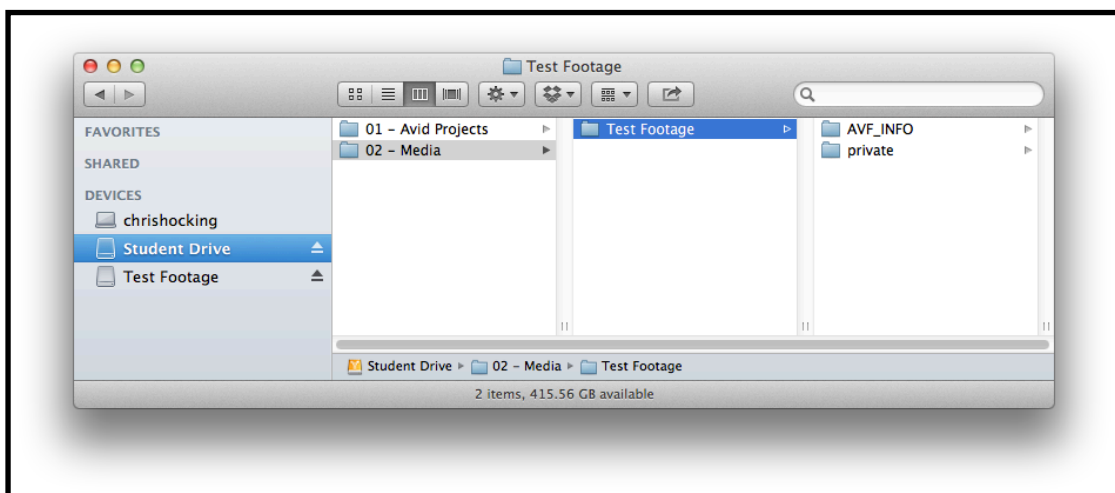
- We now have a few options:

1. We just leave the footage "as is" and start editing straight away. Avid will just continue to link to the footage in its current location. If you have a really tight turn-around, then this might be the perfect option (for example, if you're working for a TV news channel, and you need to quickly throw together a segment). The negative however is that you're working with highly compressed AVCHD footage (which will sometimes slow down the editing process - just like attempting to edit H.264 files in Final Cut Pro 7), and the footage is still on the original card (or in our case the DMG file). If you disconnect the card or eject the DMG - the footage will go offline.
2. We could copy the whole contents of the card (or in our case the DMG file) to our external hard drive, and then manually link to the footage via AMA. The advantage of this is that you will then have all the footage stored on your external hard drive, making things easily to "carry around". The disadvantage of this is that the footage is still in its AVCHD format - which again, is not ideal for editing. Also, because of the way Mountain Lion treats AVCHD files, finding the MTS files you need to link via AMA is not as simple as you'd think - but I'll show you anyway.
3. We could import the MTS files into Avid either via drag-and-drop or via the **File > Import** menu. This is what is regarded as the "traditional" method of bringing in files, and will transcode the MTS files into whatever **Video Resolution** and to whatever drive you set in your **Media Creation** settings. Traditional imports, although sometimes simpler - are normally a lot slower than using AMA, so let's just skip this option for now.
4. You can bring the files in via AMA, then make use of Avid's **Consolidate/Transcode** functionality, allowing you to convert the AVCHD media into something a little more editor-friendly. This is the preferred workflow.

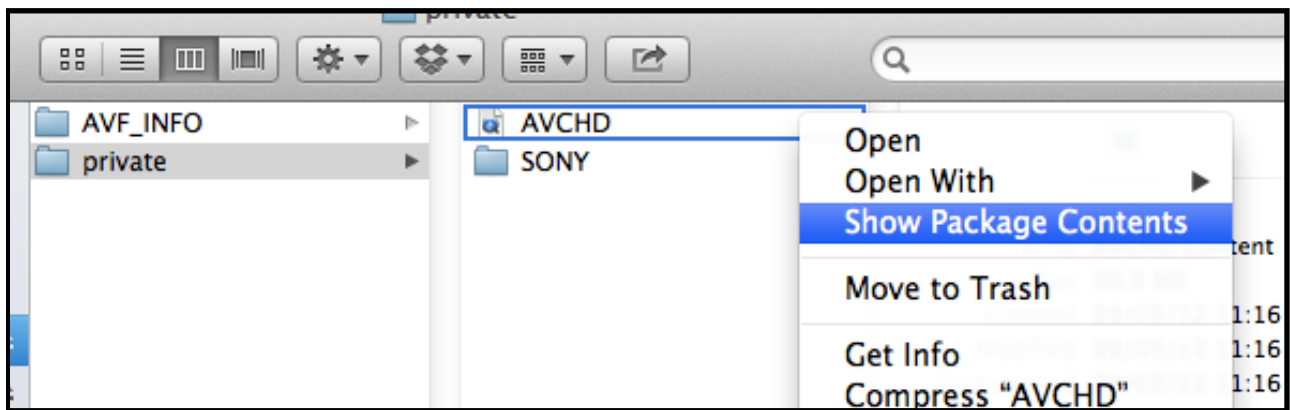
- We have already done option one, so let's have a quick look at option two. From within **Finder**, let's navigate to the **Test Footage** drive. You'll see that it contains two folders (**AVF_INFO** and **private**). Select them both and copy them (either by going to **Edit > Copy 2 Items**, right-clicking and selecting **Copy 2 Items**, or by pressing **COMMAND + C** on your keyboard).



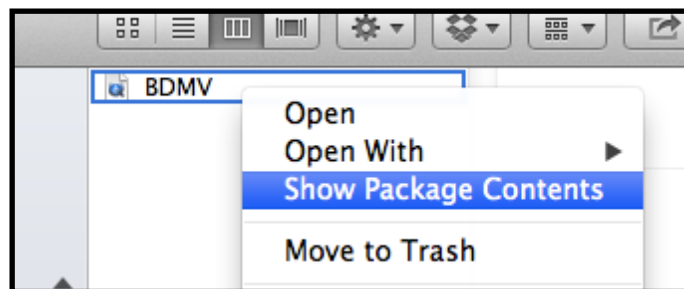
- On our Student Drive, let's create a new folder called **02 - Media**, then create a new sub-folder within that called **Test Footage**, and **Paste** the files in there (you can use the **COMMAND + V** shortcut key on your keyboard).



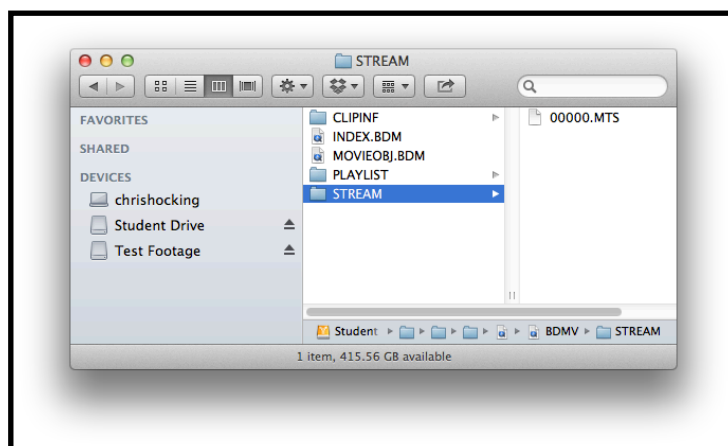
- We now have the footage on our external drive ready to go. But how do we actually access the footage? Unfortunately in Lion and Mountain Lion, Apple has tried to make AVCHD files work more easily with iMovie, and have essentially hidden all the actual useful files. What we need to do is navigate to the **private** folder, click the **AVCHD** file, right click on it, then select **Show Package Contents**.



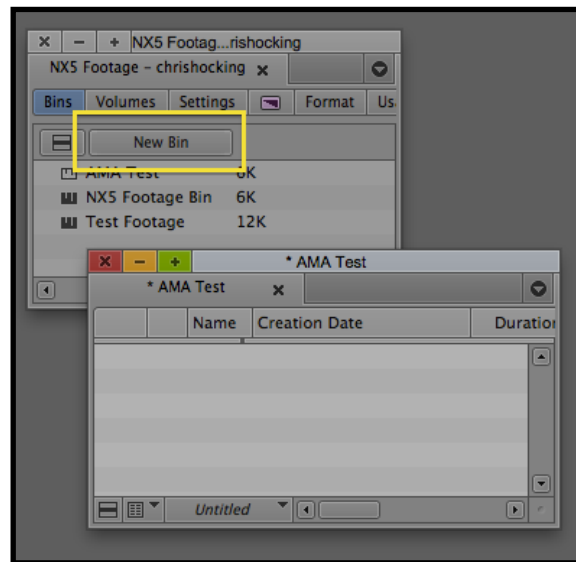
- This will open up a new window with a single file called **BDMV**. Again, we need to right-click and selected **Show Packaged Contents**.



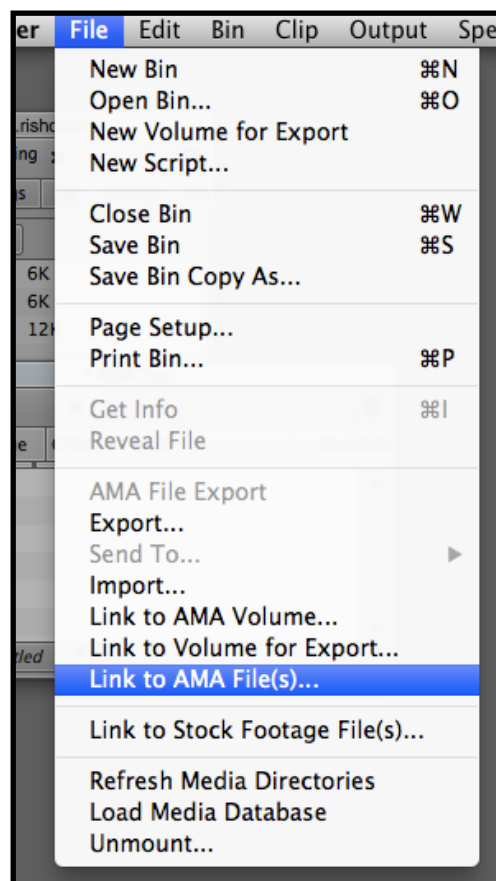
- We can now finally see the REAL contents of the card. All of the actual media (i.e. the MTS files) is within the **STREAM** folder.



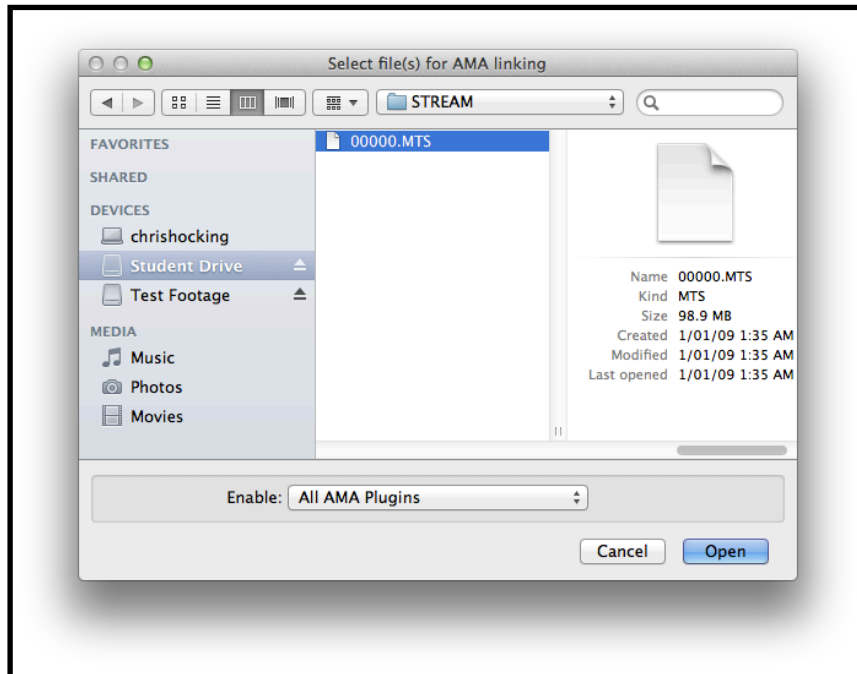
- If we wanted to just AMA-link to an individual MTS file (i.e. the actual individual video files), we would jump back into Avid, then create a **New Bin** called **AMA Test**.



- With the new bin open and selected, we would then click **File > Link to AMA File(s)...**



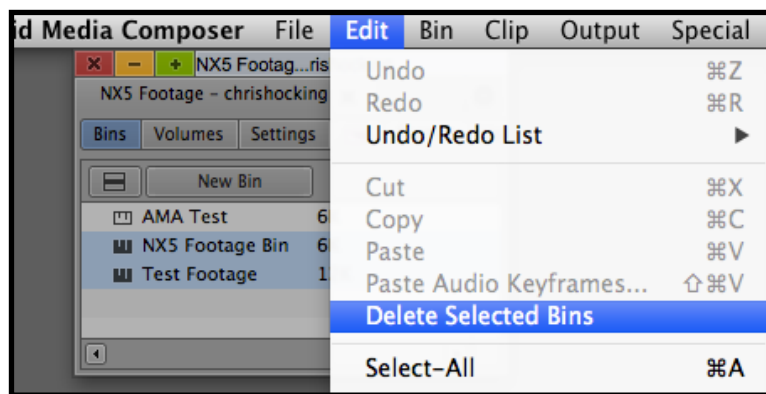
- To speed things up, we would then drag the MTS file from Finder, into the **Select file(s) for AMA linking** window and click **Open**. *This is a really handy tip - and can be used in all Mac OS applications.*



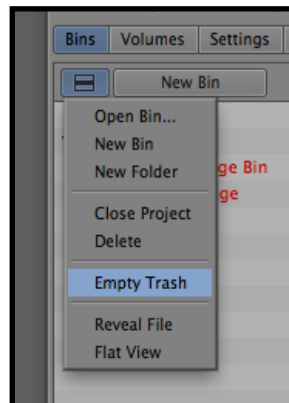
- The footage is now successfully imported into our Avid project, ready to work with.



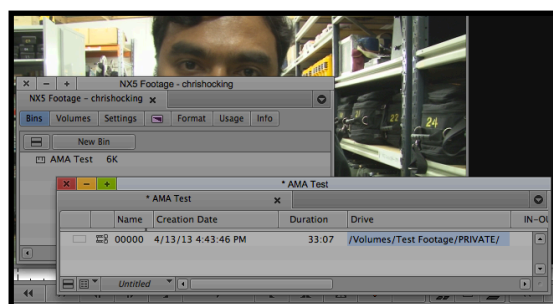
- However, even though we're now linking to the media that's contained on our external hard drive (so everything in the one place - great!) - we're still working with **AVCHD** files, which is not ideal. So let's have a look at the fourth option explained above and transcode the footage to a more Avid friendly codec.
- To keep things nice and tidy, first up, let's delete the **NX5 Footage Bin** and **Test Footage** bins, as we don't need them any more. Simply right click on the bin, then select **Delete Selected Bins** or use the **Delete Selected Bins** option from the **Edit** menu.



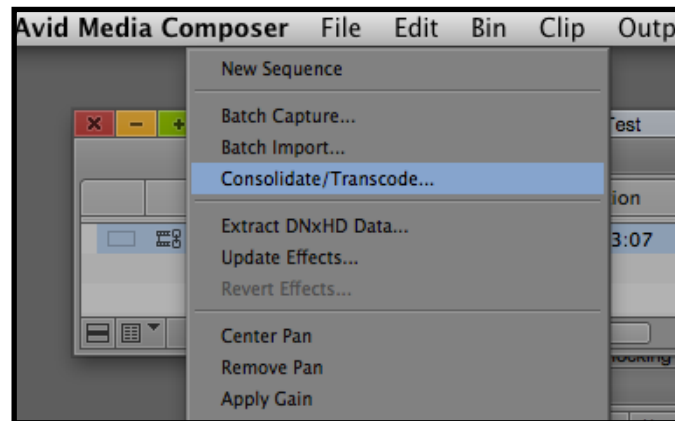
- Once you have deleted the two bins, they will appear in your **Trash**. Click the Fast Menu button (or *Hamburger* button as I call it), then select **Empty Trash** to delete the bins permanently.



- You should now only have one bin in your project - the **AMA Test** bin, which contains the single AMA-linked clip, that's stored on your external hard drive. *Neat and tidy - nice!*



- What we want to do now is right click on the clip, and select **Consolidate/Transcode**.

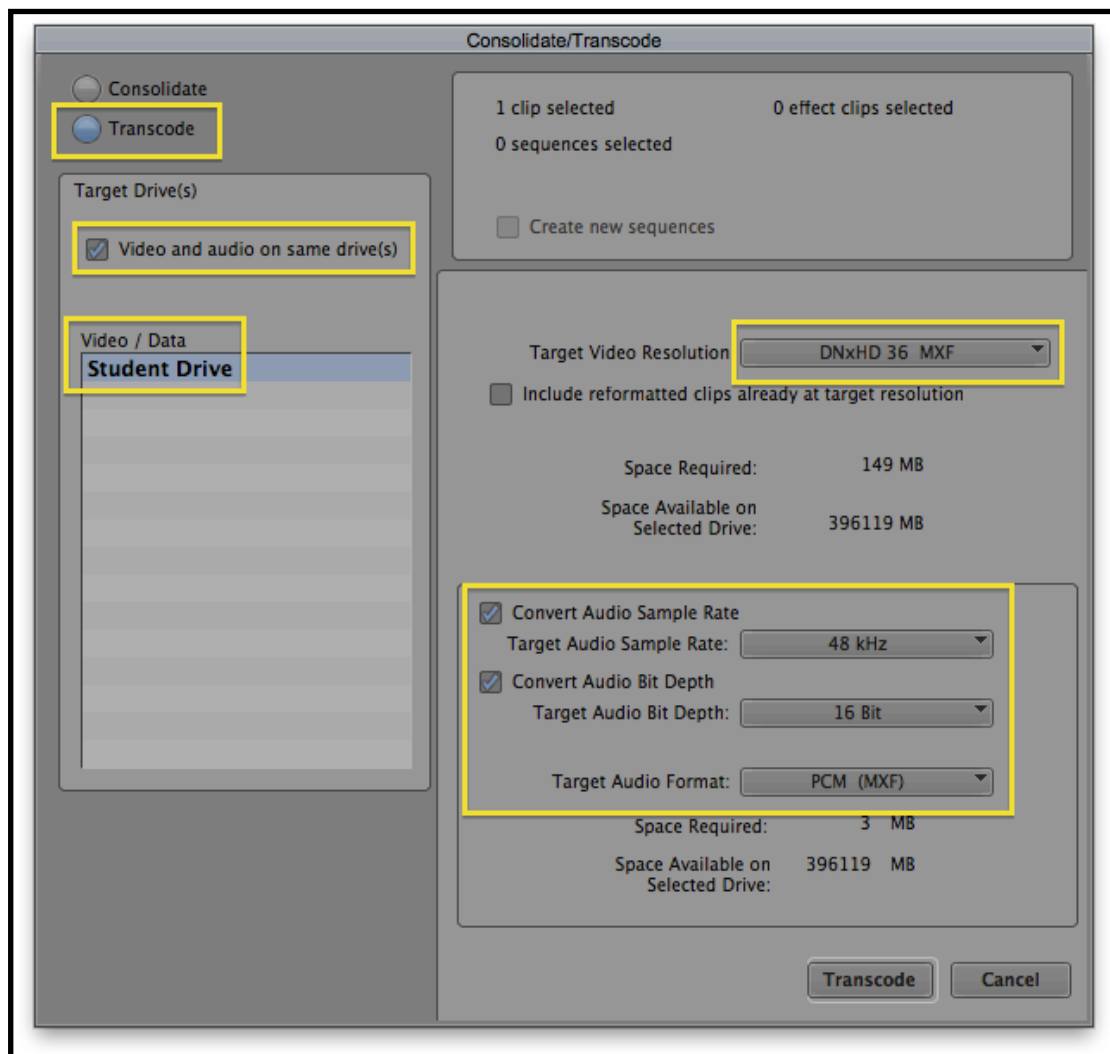


- Unfortunately, the **Consolidate** function won't work in this case, as the consolidation function only works with files Avid can read natively - such as DV, XDCAM, P2, etc. Avid Media Composer uses the AMA plugin, to read AVCHD files, so the consolidation function simply doesn't work.

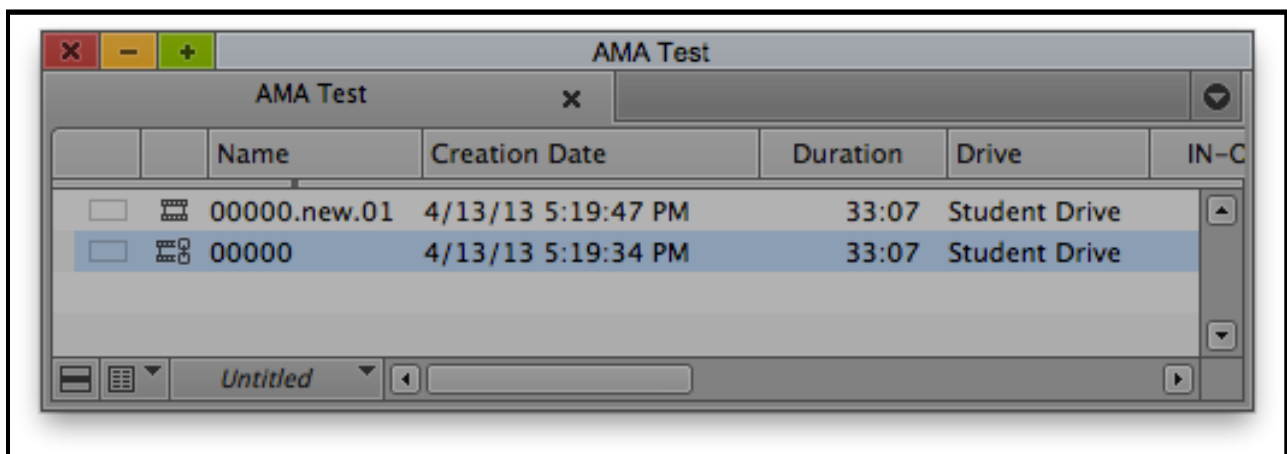
- If you try it, you'll just get the following error:



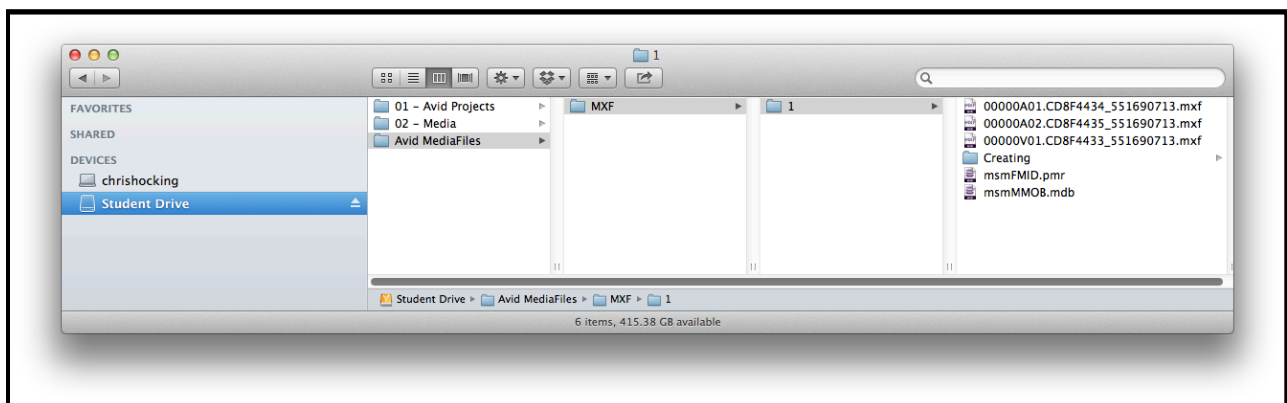
- However, what we can do is **Transcode** all the footage into an Avid friendly format. For the purposes of this example, we'll use **DNxHD 36 MXF**.
- From within the **Consolidate/Transcode** window, make sure that **Transcode** is selected in the top left-hand corner. Underneath that, make sure that **Video and audio on the same drive(s)** is ticked, and that your external drive is highlighted (in our case, it's the **Student Drive**).
- In the **Target Video Resolution** section, we have selected **DNxHD 36 MXF**, as explained previously - however you can use whatever format you prefer - for example, you might prefer to use **Apple ProRes MXF**.
- I generally always tick the **Convert Audio Sample Rate** and **Convert Audio Bit Depth** so that I'm confident that the audio is in a format that suits the editing process (i.e. **48kHz 16bit**).
- The **Target Audio Format** allows you to customise what type of file type Avid saves the audio files to - but for almost every case, you can safely leave it as **PCM (MXF)**.



- Once everything is set up correctly, you can click the **Transcode** button. Avid will now convert the AVCHD file into a DNxHD 36 file, and you'll notice a new clip in your **AMA Test** bin.
- The **original file (00000)** is the AMA linked file (you can tell it's AMA, because of the little chain icon). As you can see below, this file is located on our external hard drive - in this case called **Student Drive**.
- The **transcoded file (00000.new.01)** is the DNxHD 36 file. Again, because of the **Media Creation** settings, it has saved the files on our external hard drive - in this case called **Student Drive**.



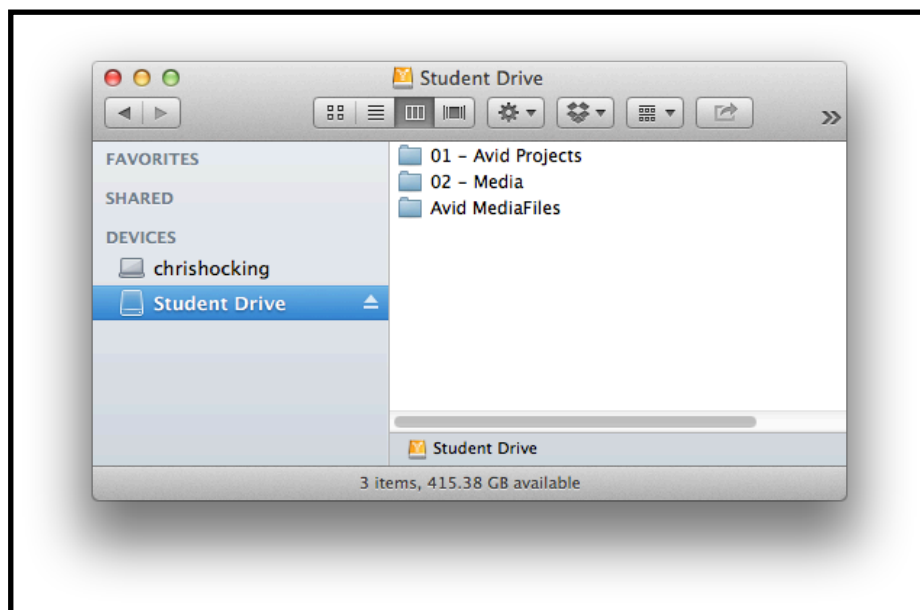
- We can now safely delete the original AMA-linked file (by selecting it and pressing **Delete** on your keyboard), and start cutting with the DNxHD file.
- If we now look on the external hard drive from Finder, we can see that a **Avid MediaFiles** folder has been automatically created, and within it, is all our newly created **DNxHD 36** video and **PCM** audio (one file for the left channel of audio, and one file for the right channel of audio). You never really have to worry about the contents of this folder - as Avid does all the work. What you do need to do is keep things organised - and try to only have ONE **Avid MediaFiles** folder for each project.



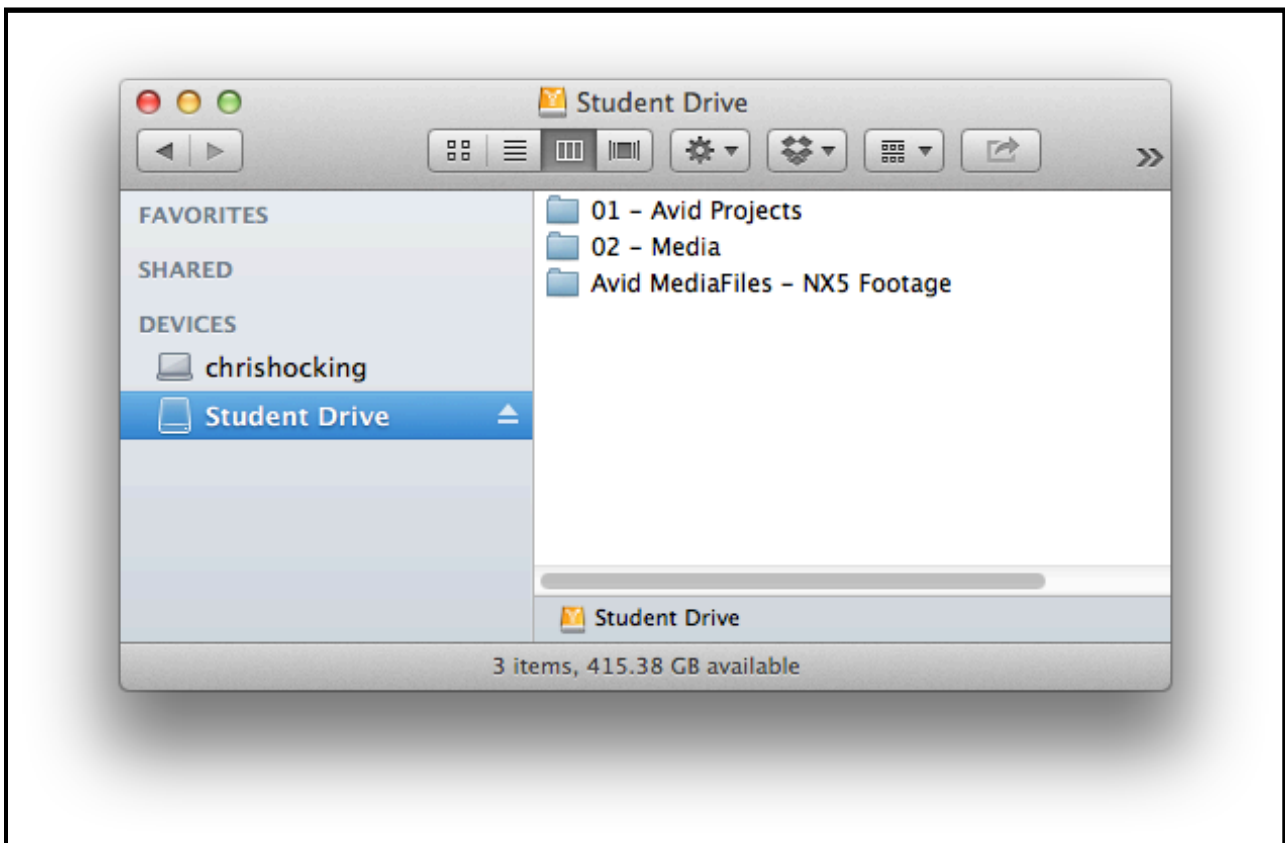
- As you can only have ONE **Avid MediaFiles** folder on a drive, the easiest way to manage things is to simply rename the folder when you're switching between projects. For example, let's close Avid via the **Avid Media Composer > Quite Avid Media Composer** menu (or by simply pressing **COMMAND + Q** on your keyboard).



- From **Finder**, let's navigate to our external hard drive.



- What we can do once we've finished editing with this job, is simply rename the **Avid MediaFiles** folder to something like **Avid MediaFiles - NX5 Footage**. As soon as you rename the folder, Avid will no longer see it.
- You don't HAVE to keep each project separate though. If you have a big hard drive that contains multiple Avid jobs, you could just have a single **Avid MediaFiles** folder that contains media for multiple projects. However, as the Avid MediaFiles folder is essentially managed by the software, you lose some control, which makes backing up and archiving individual projects slightly more tricky.
- In the Post Production community there are two schools of thought. Some companies just have a single MASSIVE **Avid MediaFiles** folder which contains media for all of their jobs, and they use Avid's internal tools (i.e. the **Media Tool**) to manage things. However, most companies have a separate "drive" (or Workspace, when they are using Shared Storage - such as on an Avid ISIS) for each job, allowing them to easily archive old jobs as soon as they are no longer needed.



- If you want to work on this project again, simply rename the folder back to **Avid MediaFiles**.
- You can now open Avid Media Composer again, and start cutting away your master piece. *Have fun!*