

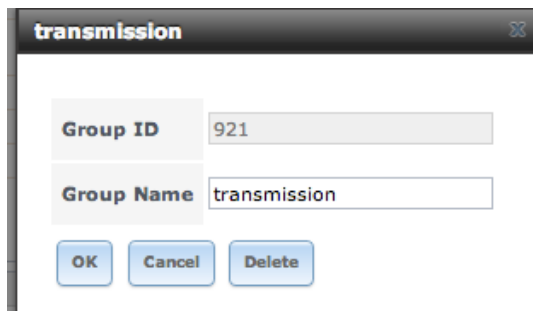
Transmission and FreeNAS Using Shared NFS Mounts

I wanted to share all of the related mount paths for transmission to other users, so i could have full control of whats in the folders without having to ssh into the jail every time. This will assume you've installed the transmission pbi plugin, its not running (plugin turned OFF), and know your way around a linux shell.

FreeNAS Configuration

There are several things that need to be in place before you can get transmission to work completely. All of these

Group & User Account



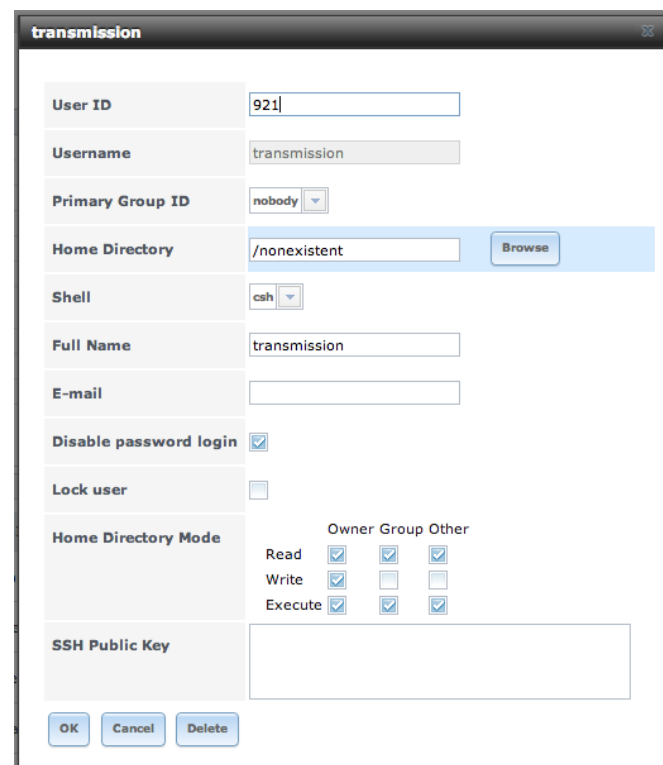
A screenshot of a dialog box titled "transmission". It contains two input fields: "Group ID" with the value "921" and "Group Name" with the value "transmission". At the bottom are three buttons: "OK", "Cancel", and "Delete".

Create a new group called transmission with the same gid as to the one in the jail. In my case the gid was 921 yours may be the same, just double check.

Create a user on the nas web-ui called transmission. Make the user ID match the user ID of the jail's transmission user. If you aren't sure what this uid is. you can login to the jail to get it.

simply run:

```
cat /etc/passwd | grep transmission
```



A screenshot of a dialog box titled "transmission" for creating a user. It contains several fields: "User ID" (921), "Username" (transmission), "Primary Group ID" (nobody), "Home Directory" (/nonexistent with a "Browse" button), "Shell" (csh), "Full Name" (transmission), and "E-mail". There are checkboxes for "Disable password login" (checked) and "Lock user" (unchecked). A "Home Directory Mode" section shows permissions for Owner, Group, and Other: Read (all checked), Write (Owner checked, Group and Other unchecked), and Execute (all checked). An "SSH Public Key" field is at the bottom. At the bottom are "OK", "Cancel", and "Delete" buttons.

User ID	921																
Username	transmission																
Primary Group ID	transmission																
Home Directory	/nonexistent Browse																
Shell	csh																
Full Name	transmission																
E-mail																	
Disable password login	<input checked="" type="checkbox"/>																
Lock user	<input type="checkbox"/>																
Home Directory Mode	<table border="1"> <thead> <tr> <th></th> <th>Owner</th> <th>Group</th> <th>Other</th> </tr> </thead> <tbody> <tr> <td>Read</td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Write</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Execute</td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> </tbody> </table>		Owner	Group	Other	Read	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Write	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Execute	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Owner	Group	Other														
Read	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>														
Write	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>														
Execute	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>														
SSH Public Key																	

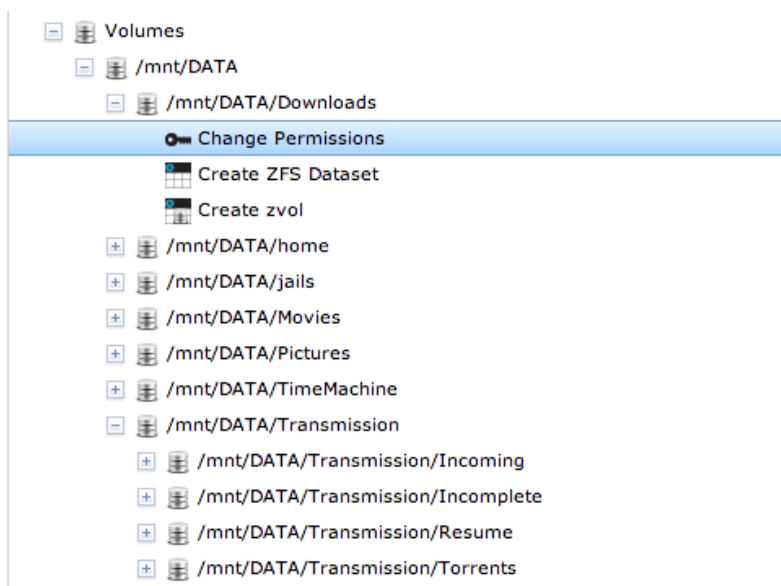
OK Cancel Delete

set the primary group ID to the group you just created above (transmission), i suggest disabling password login.

Create Mount Points

Once thats all done, create the mount points on your raid array. For my configuration I wanted to separate everything out. This led me with the following structure. The idea is all the finished Downloads will be in /mnt/DATA/Downloads and the incomplete files, watch dir, resume file, torrents will be stored in a separate mount point entirely.

The purpose of this is to prevent other plugins such as couch potato from scrubbing your incomplete downloads and all the torrents and such.



Once all your mount points are created we need to chown the appropriate permissions onto these datasets.

In my case im okay with 0777.. You may not be. Either way click Change Permissions and set them to something similar to what you see in the screenshot.

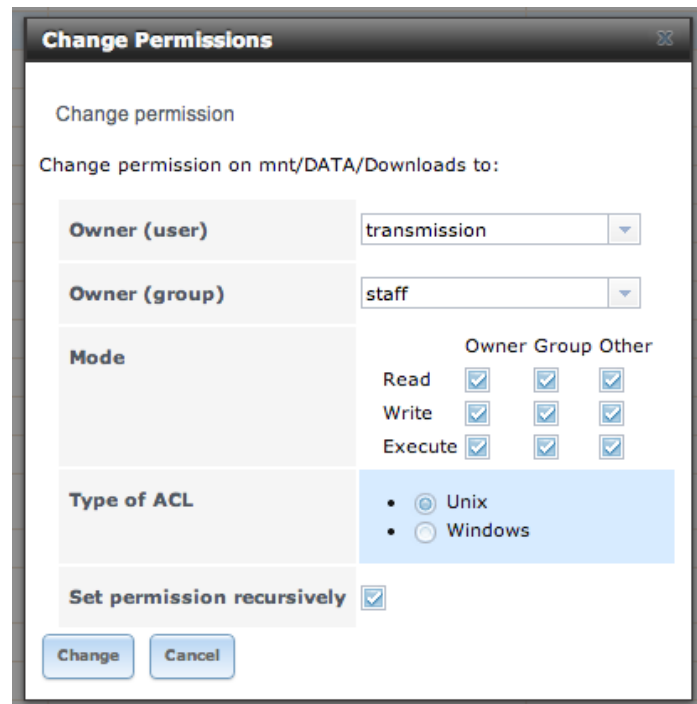
For the Downloads dir i set the group to a common group which is shared among my AFP/CIFS/SMB users (in this case staff).

Make sure to set permissions recursively!

Once you're satisfied with this stuff, hit change.

Do something similar for the /mnt/Transmission mount point. Except set the group to transmission.

You should be able to set it at the root level and it can push the changes to all the sub mount points that were created.



The next thing you need to do is ssh into the nas, login to the jail and create a few directories. In my case i put all my mounts in all my jails at /mnt/*. I find that having a standard location across all jails for your shared mount points makes things worlds less complicated.

```
$ cd /mnt;
```

```
$ mkdir downloads incoming incomplete resume torrents;
```

In the end what you should have is something like this:

```
root@bit_2:/mnt # ls
downloads      incoming      incomplete    resume        torrents
root@bit_2:/mnt #
```

Create Storage Points for Jail

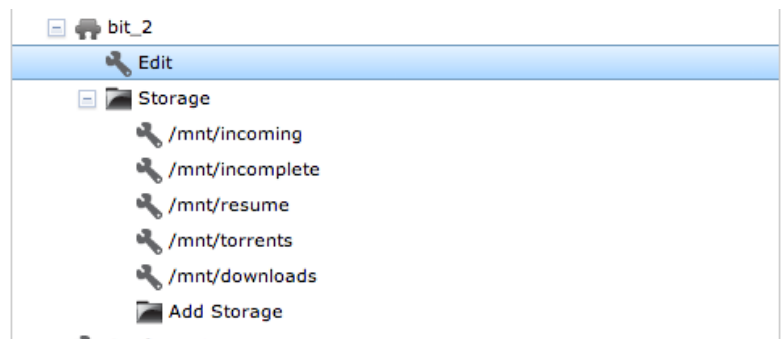
Once all the folders are created we need to map the datasets to the jails local folders for the NFS mounts.

In the NAS web-ui begin adding storage, referring to this chart on how to layout your mount points.

	NAS	Jail	settings.json	
1				
2	Downloads	/mnt/DATA/Downloads	/mnt/downloads	download-dir
3	Incoming	/mnt/DATA/Transmission/Incoming	/mnt/incoming	watch-dir, watch-dir-enabled
4	Incomplete	/mnt/DATA/Transmission/Incomplete	/mnt/incomplete	incomplete-dir, incomplete-dir-enabled
5	Resume	/mnt/DATA/Transmission/Resume	/mnt/resume	need to ln -s /mnt/resume trans dir/resume
6	Torrents	/mnt/DATA/Transmission/Torrents	/mnt/torrents	need to ln -s /mnt/torrents trans dir/torrents

Once all the storage points are created you should have something similar to this in your web-ui.

To confirm things are mounted properly you can ssh into the nas, and run a df -ah to see all the mounted fs paths.



Mine looks like this (i grep'd for only the ones we care about) so you may see more than whats in the picture. You can see it mounts to the jails/bit_2/mnt/*

```

3. mikedevita@nas:/mnt/DATA (ssh)
[mikedevita@nas] /mnt/DATA# df -ah | grep /mnt/DATA/Downloads
DATA/Downloads                2.3T    534k    2.3T    0%    /mnt/DATA/Downloads
/mnt/DATA/Downloads           2.3T    534k    2.3T    0%    /mnt/DATA/jails/couchpotato_1/mnt/Downloads
/mnt/DATA/Downloads           2.3T    534k    2.3T    0%    /mnt/DATA/jails/bit_2/mnt/downloads
[mikedevita@nas] /mnt/DATA# df -ah | grep /mnt/DATA/Transmission
DATA/Transmission             2.3T    256k    2.3T    0%    /mnt/DATA/Transmission
DATA/Transmission/Incoming    2.3T    3.3M    2.3T    0%    /mnt/DATA/Transmission/Incoming
DATA/Transmission/Incomplete  2.3T     13M    2.3T    0%    /mnt/DATA/Transmission/Incomplete
DATA/Transmission/Resume      2.3T    250k    2.3T    0%    /mnt/DATA/Transmission/Resume
DATA/Transmission/Torrents    2.3T    273k    2.3T    0%    /mnt/DATA/Transmission/Torrents
/mnt/DATA/Transmission/Incoming  2.3T    3.3M    2.3T    0%    /mnt/DATA/jails/bit_2/mnt/incoming
/mnt/DATA/Transmission/Incomplete  2.3T     13M    2.3T    0%    /mnt/DATA/jails/bit_2/mnt/incomplete
/mnt/DATA/Transmission/Resume    2.3T    250k    2.3T    0%    /mnt/DATA/jails/bit_2/mnt/resume
/mnt/DATA/Transmission/Torrents  2.3T    273k    2.3T    0%    /mnt/DATA/jails/bit_2/mnt/torrents
[mikedevita@nas] /mnt/DATA#

```

Fix Those Pesky Resume & Torrents folders!

So there is no way currently via transmissions settings.json to configure the path for the resume and torrents folders. There is however a way around this restriction... symbolic links!

when in the jail simply create symbolic links from the /mnt/resumeltorrents folders to the transmissions dir..

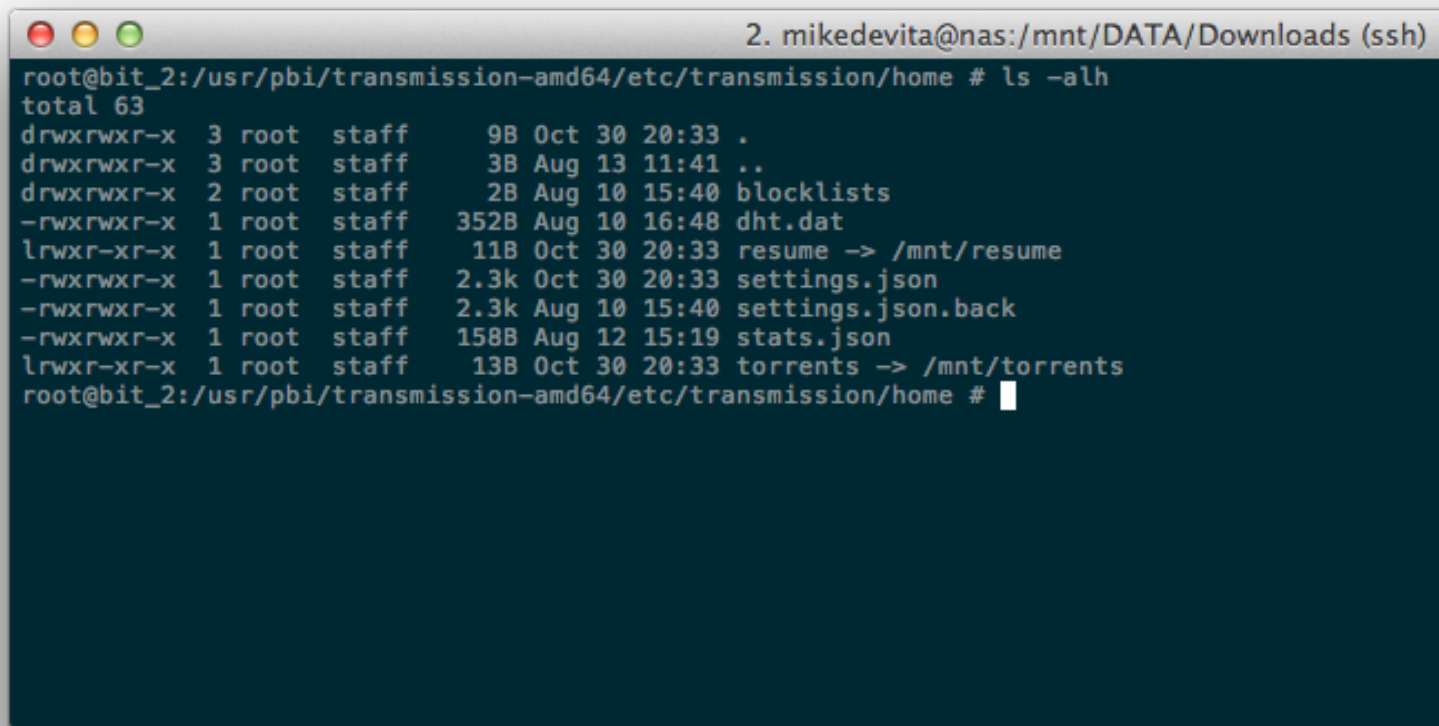
first off, delete the damn local resume and torrent folders.

```
$ cd /usr/pbi/transmission-amd64/etc/transmission/home;  
$ rm -rf resume torrents;
```

Next up create the symbolic links to those mount points.. make sure you're still in the transmission/home dir..

```
$ ln -s /mnt/resume resume;  
$ ln -s /mnt/torrents torrents;
```

Doing an ls -alh should provide you with something similar to this



```
2. mikedevita@nas:/mnt/DATA/Downloads (ssh)  
root@bit_2:/usr/pbi/transmission-amd64/etc/transmission/home # ls -alh  
total 63  
drwxrwxr-x  3 root  staff    9B Oct 30 20:33 .  
drwxrwxr-x  3 root  staff    3B Aug 13 11:41 ..  
drwxrwxr-x  2 root  staff    2B Aug 10 15:40 blocklists  
-rwxrwxr-x  1 root  staff  352B Aug 10 16:48 dht.dat  
lrwxr-xr-x  1 root  staff   11B Oct 30 20:33 resume -> /mnt/resume  
-rwxrwxr-x  1 root  staff   2.3k Oct 30 20:33 settings.json  
-rwxrwxr-x  1 root  staff   2.3k Aug 10 15:40 settings.json.back  
-rwxrwxr-x  1 root  staff  158B Aug 12 15:19 stats.json  
lrwxr-xr-x  1 root  staff   13B Oct 30 20:33 torrents -> /mnt/torrents  
root@bit_2:/usr/pbi/transmission-amd64/etc/transmission/home #
```

Configuring Transmission

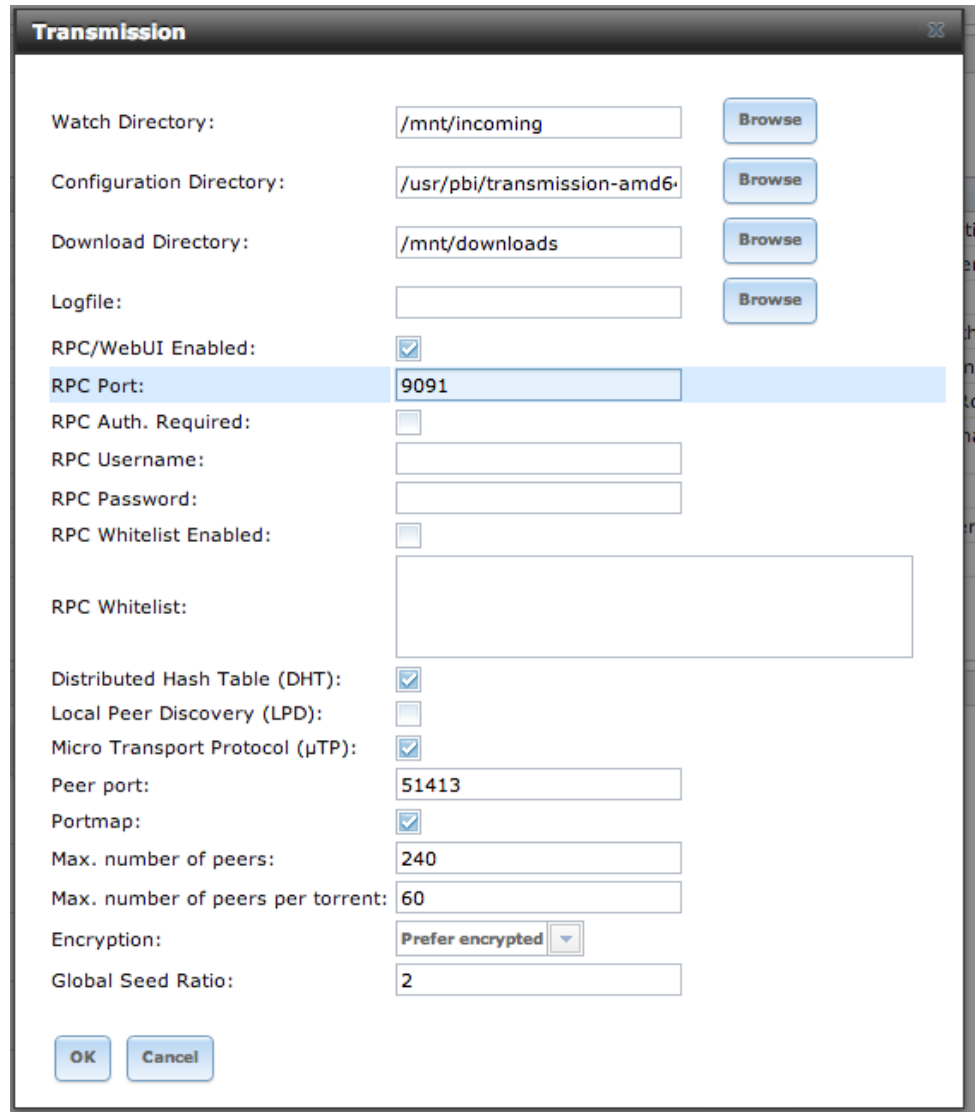
Now that all the mount points are there, and permissions are set its time to configure transmission.

Since FreeNAS takes some of the configuration in hand for you, its not as simple as just editing the settings.json file you see in the screenshot above. You will need to do two things: Edit the web-ui settings for the transmission plugin, then edit the settings.json file.

Make your Transmission Plugin Settings look like this:

You're only concerned really with the watch directory and Download Directory.

You can't set these two things in settings.json as it overwrites those things when you restart the plugin each time.



The screenshot shows the Transmission configuration window. The 'RPC Port' is highlighted in blue and set to 9091. The 'Watch Directory' is set to /mnt/incoming, 'Configuration Directory' to /usr/pbi/transmission-amd64, and 'Download Directory' to /mnt/downloads. The 'Logfile' field is empty. The 'RPC/WebUI Enabled' checkbox is checked. The 'RPC Auth. Required' checkbox is unchecked. The 'RPC Username' and 'RPC Password' fields are empty. The 'RPC Whitelist Enabled' checkbox is unchecked. The 'RPC Whitelist' field is empty. The 'Distributed Hash Table (DHT)' checkbox is checked. The 'Local Peer Discovery (LPD)' checkbox is unchecked. The 'Micro Transport Protocol (µTP)' checkbox is checked. The 'Peer port' is set to 51413. The 'Portmap' checkbox is checked. The 'Max. number of peers' is set to 240. The 'Max. number of peers per torrent' is set to 60. The 'Encryption' dropdown is set to 'Prefer encrypted'. The 'Global Seed Ratio' is set to 2. The 'OK' and 'Cancel' buttons are at the bottom.

Watch Directory:	/mnt/incoming	Browse
Configuration Directory:	/usr/pbi/transmission-amd64	Browse
Download Directory:	/mnt/downloads	Browse
Logfile:		Browse
RPC/WebUI Enabled:	<input checked="" type="checkbox"/>	
RPC Port:	9091	
RPC Auth. Required:	<input type="checkbox"/>	
RPC Username:		
RPC Password:		
RPC Whitelist Enabled:	<input type="checkbox"/>	
RPC Whitelist:		
Distributed Hash Table (DHT):	<input checked="" type="checkbox"/>	
Local Peer Discovery (LPD):	<input type="checkbox"/>	
Micro Transport Protocol (µTP):	<input checked="" type="checkbox"/>	
Peer port:	51413	
Portmap:	<input checked="" type="checkbox"/>	
Max. number of peers:	240	
Max. number of peers per torrent:	60	
Encryption:	Prefer encrypted	
Global Seed Ratio:	2	

OK Cancel

in order to move the Incomplete folder you'll need to modify settings.json manually.. which is located in: /usr/pbi/transmission-amd64/etc/transmission/home/settings.json edit settings.json and change the two settings you see:

```
"incomplete-dir": "/mnt/incomplete",  
"incomplete-dir-enabled": true,
```

Starting & Testing Transmission

Now if you've followed all these steps and haven't messed anything up, its time to start the plugin and test out the torrents.

Fire up the plugin, then to test every things worked you will need to do two things:

1. Drop a torrent file into the incoming dir on your nas
2. try to paste a web URL or upload a torrent via the transmission web-ui

I like to use the ubuntu torrent file as its always well seeded and downloads quick. The link to that is here: www.ubuntu.com/download/alternative-downloads

copy/paste the torrent link into the web-ui, and let it start downloading. While its downloading, check the various folders.

While its still downloading, it will show up on your NAS in /mnt/DATA/Transmission/Incomplete.

Once its finished it should show up in /mnt/DATA/Downloads

Test the Resume folder by pausing the torrent, you should see the .resume file show up in /mnt/DATA/Transmission/Resume

Rinse and repeat this same process except drop a torrent file in /mnt/DATA/Transmission/Incoming.

Q&A

If you have any questions, post in the thread, or shoot me a tweet @gorelative.