

WPU BackUp To Cloud

I: Overview

WPU Backup To Cloud (BUTC) creates an “invisible” backup of your data into either a Dropbox or OneDrive folder with the following name structure:

abc-1234567(username).backup

This folder contains hardlinks* to user files in:

Documents, Downloads, Desktop, Movies, Music. Photos

So long as the scripts have access to the items*.

This folder is **not** meant to be modified by the end user either on the machine OR via web clients. You will see this folder if you look on the web or browse sync errors posted by the Dropbox or OneDrive client.

II: Menu Items and Notifications

BUTC Status Menu

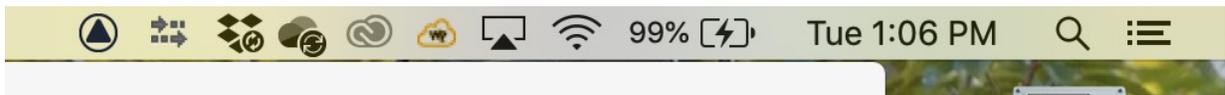
You will note cloud icon with a “WP” logo in it. This is the BUTC status menu. Will show the following statuses:



- 1) Idle. The backup script is not currently running (though Dropbox or OneDrive may be busy).



- 2) An error status that indicates that the Backup has been paused or stopped. Any item created after the script “last successfully run is not being backed up.



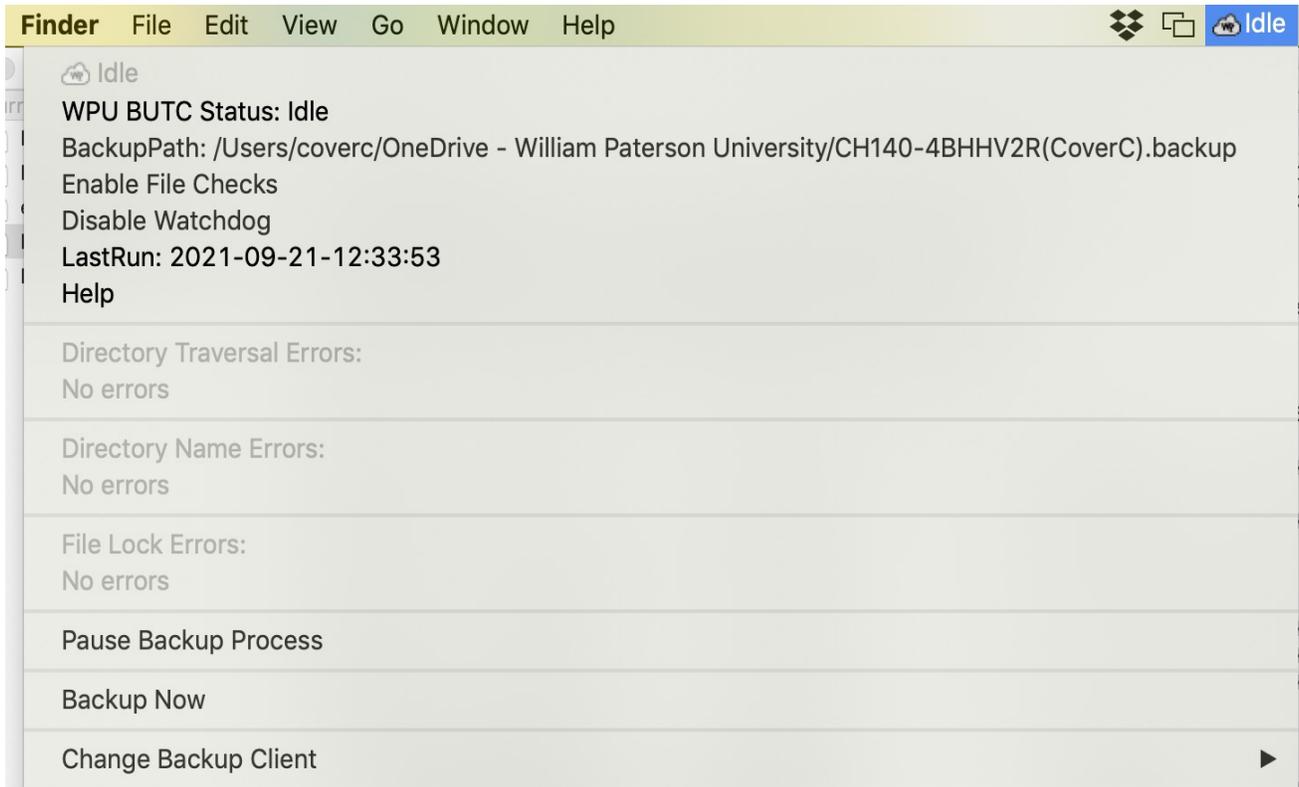
- 3) Directory traversal or name error. The backup script could not access certain folders or there are folders with a space at the beginning or end of the name. Such folders cannot be backed up.

*MacOS 10.14 and later have security settings that may disallow our scripts from accessing certain items in your home folder. Please contact the Helpdesk if you see an error.

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Menu Items and Notifications cont.

Clicking on the icon will show more details about the backup process:

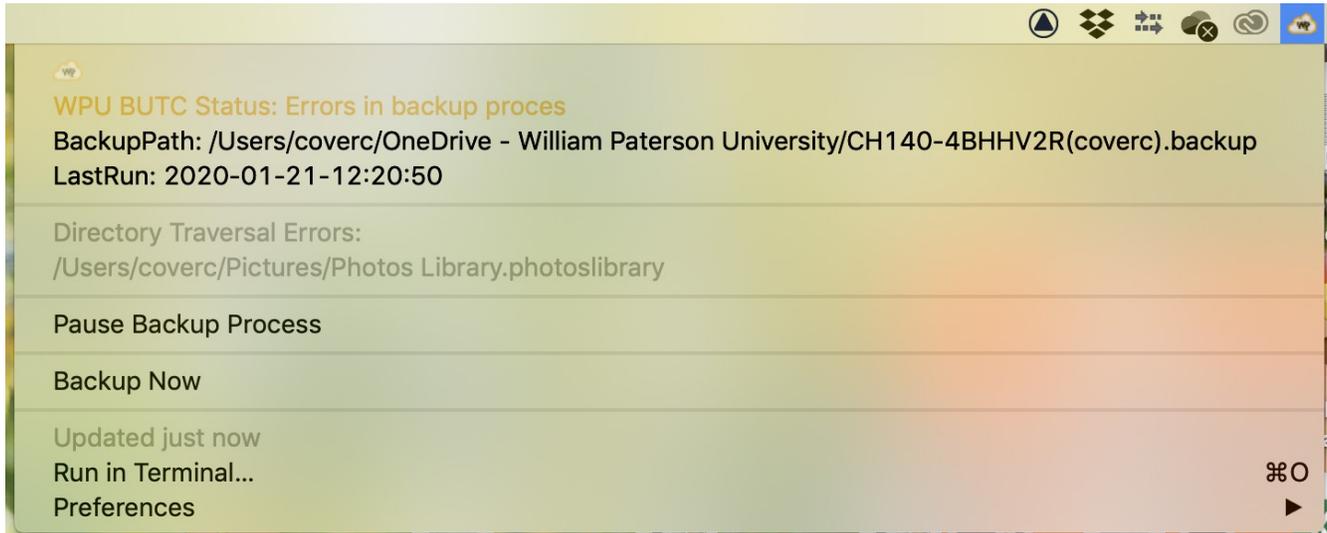


Clicking on the icon will show more details about the backup process:

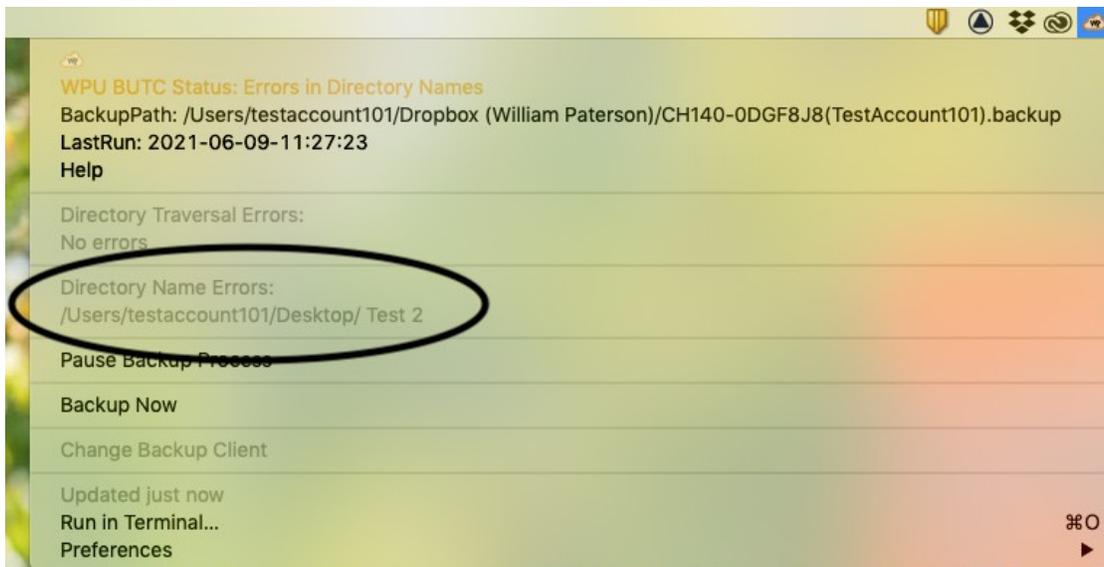
- 1) Backup process status
- 2) Backup Path
- 3) Enable or disable file name checking.
- 4) Enable or disable the Watchdog function.
- 5) Last time the backup script ran
- 6) Help: Opens this documentation in a browser window.
- 7) Directory traversal errors (if any).
- 8) Any files marked as locked by the OS and cannot be backed up.
- 9) **Pause Backup Process** menu item to pause backup process. This will stop the hourly script from running. This can be used while working on a user machine. When selected the menu item will change to "Resume Backup Process"
- 10) **BackupNow** menu item. Selecting this will run the backup script. This will trigger a notification center style notification to the user to wait until Dropbox or OneDrive to finish it's process (which may be lengthy).
- 11) **Change Backup Client**: This allows you to change the backup client. Options are Dropbox and OneDrive. You will only see the client you are not using.

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Menu Items and Notifications cont.



In the case of a problem traversing directories those directories will be listed in the menu. Items in that directory are not being backed up. All other locations are. This is usually a permissions issue. You can usually fix this problem by clicking the “backup now” menu item and allowing “bit bar” to access whatever items the OS asks for.



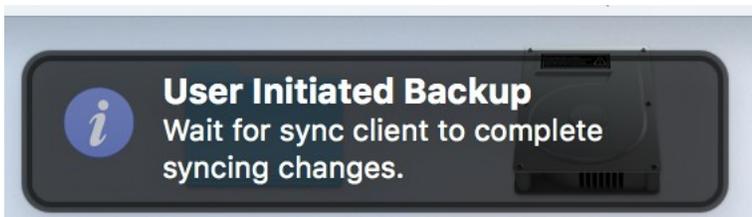
In this example there is a problem with a directory (folder) name. In this case a space at the beginning of the name. The contents of folders with name errors will not be backed up properly and should be corrected when noticed.

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Menu Items and Notifications cont.



Menu item when backup script has been paused by user.



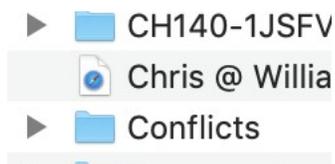
Notification Style notification triggered by "Backup Now" selection.

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IV: File Conflicts

Due to how our system works. If you use Spotlight to find a document you may be directed to your backup folder. If you edit that file then the backup no longer matches what is in your user folder. The next time the backup ran, this edited file would be deleted and replaced with the older copy in from the user folder.

In order to address this problem the BUC client will move any file it finds to have been updated within the backup to a folder named “conflicts” found in either the OneDrive – William Paterson University or Dropbox (William Paterson) folder.



When a file is moved into the Conflicts folder it is modified in the following way:

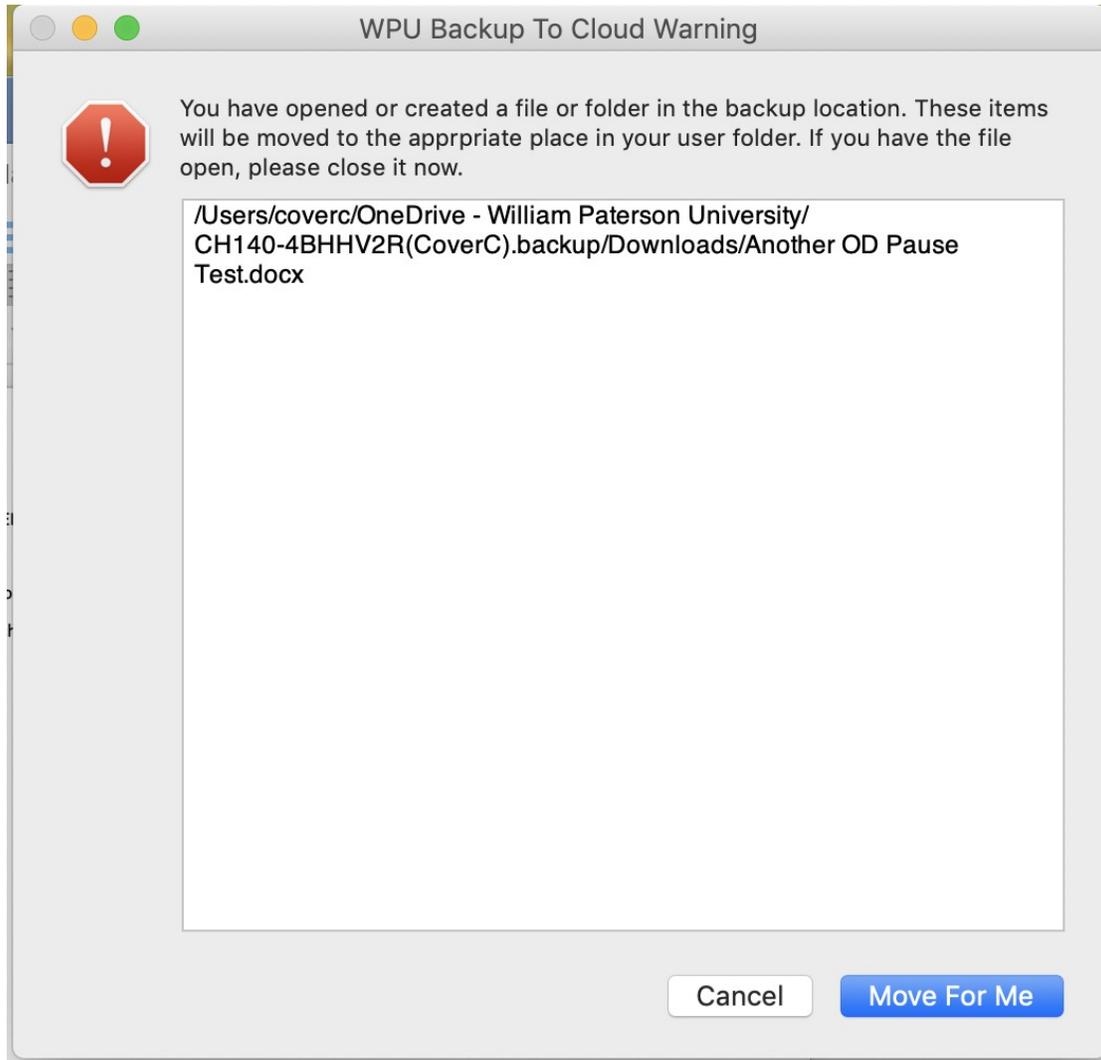


The date when the file was moved is appended to the end of the file name.

Again, the reason for this is that we do not know which file is “real”. Nor do we know whether both files have been modified and contain data you want.

WPU BackUp To Cloud Watchdog

Another process we have is a watchdog that is triggered anytime a file in the backup has been modified or if a file is created in the backup. If such a file is detected a warning notice like the below will appear:



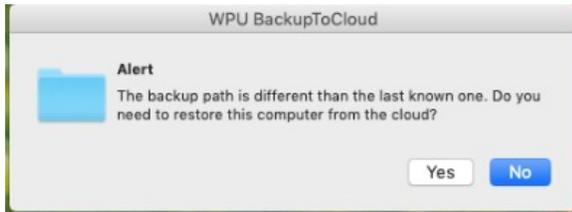
The “Move For Me” button will move the file from the backup location to the corresponding non backup location. If you are unsure whether you have modified the file in the non—backup location you can either click the “cancel” button or minimize the window and check the file. This prompt will block the backup process and will re-appear so long as the offending file is present in the backup.

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V: Restoring User Folder From Cloud

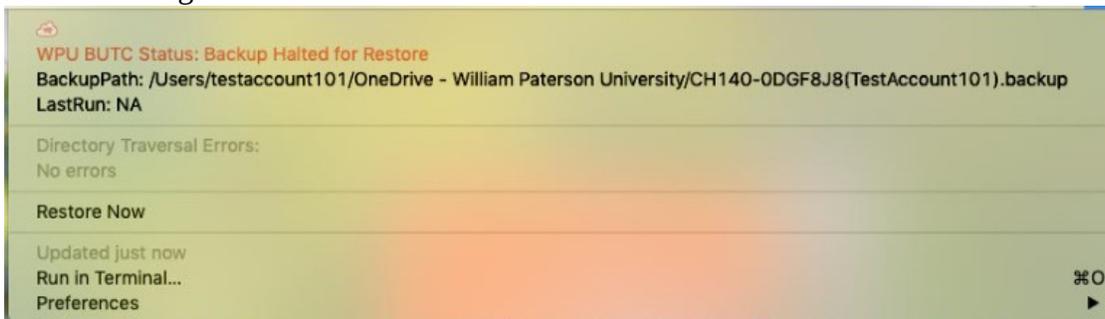
User Restores and Machine Name Changes

Each time the backup process runs it checks whether the current backup path is the same as the backup path used the last time the script ran. If they do not match you will be presented with a dialog asking whether you need to restore from the cloud. This includes any case where there is no last known backup path which is the case with a new setup.



If you need to restore from the cloud then click the “Yes” button. Otherwise, click the “No” button. Beware that if you are not restoring from the cloud and your current user folder is empty, all data in the backup location will be deleted.

Once you have selected “Yes” the Backup menu will turn red and the menu will change to the following:



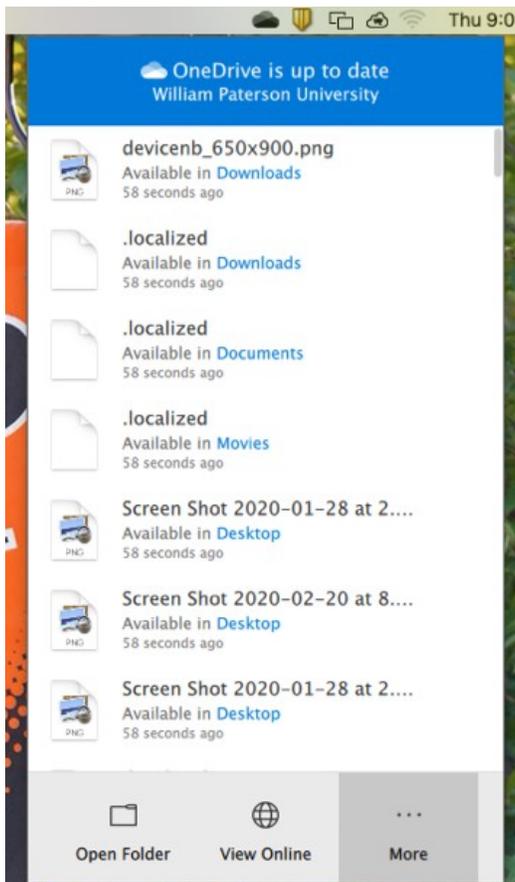
The status will be red with a notice “Backup Halted for Restore”. The only available option will be to “Restore Now”. However; **before** you select on this item **be sure that your data has been pulled down from the cloud**. Our Dropbox account automatically downloads all data unless you [incorrectly] changed the settings during the initial setup. OneDrive does not automatically download the data. Therefore if using OneDrive please follow the directions below

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Cloud Restore cont.

OneDrive File Download Directions:

Click on the OneDrive icon in the menu bar. Then click on “more”



Select “Preferences” from the pop-up menu.



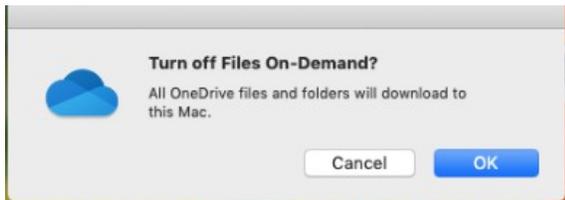
WPU BackUp To Cloud

Cloud Restore cont.

Click on the “Turn Off Files On-Demand” button.

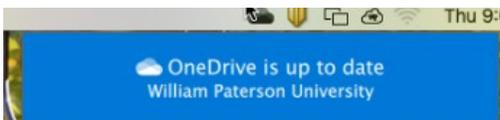


Click the “OK” button.



At this point you should wait until all files have been downloaded to your computer. This may take a LONG TIME if you have a lot of data. While you can still work while this process continues it is not suggested.

When OneDrive is done it will show the following when you click the menubar item.



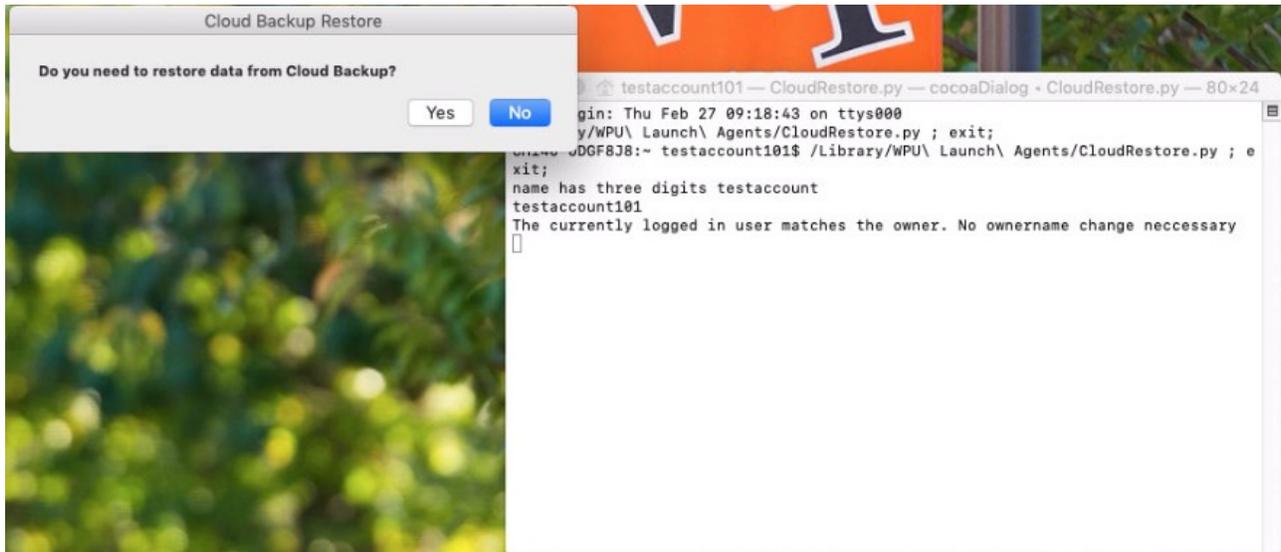
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Cloud Restore cont.

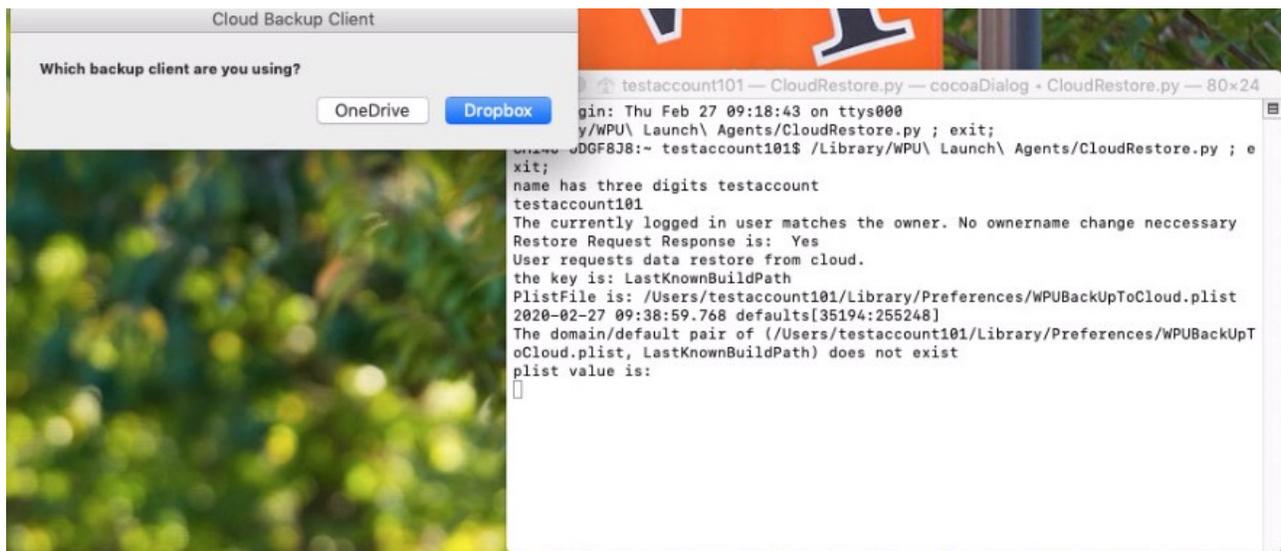
BUTC Client Restore:

Once all of your data has been transferred to your computer you can now click the “Restore Now” BUTC menu item.

You will be asked to confirm that you are restoring from the cloud. A Terminal window will also appear with output from the restore script. Click the “Yes” button.



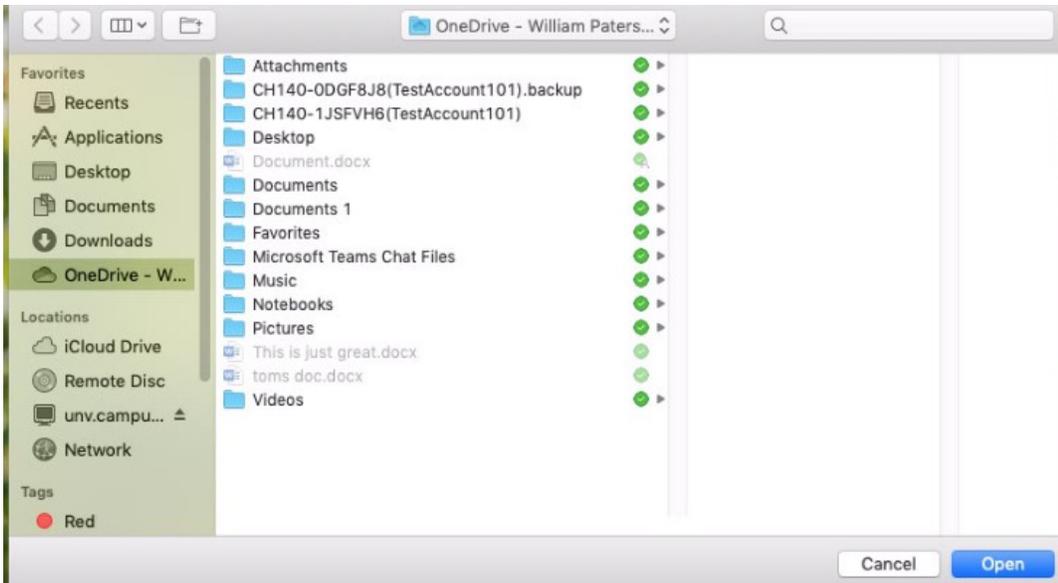
You will be asked which backup client you are using. Pick the client that has the data you need restored.



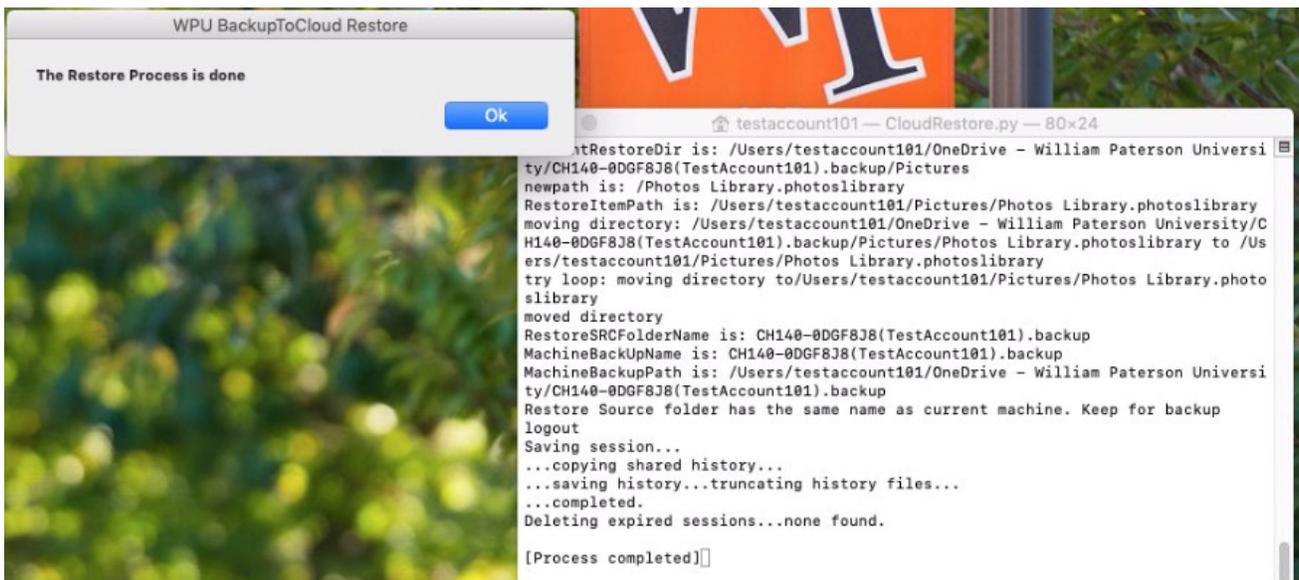
WPU BackUp To Cloud

Cloud Restore cont.

Based on your backup client choice you will be presented with the contents of the folder belonging to the client. This will either be the “OneDrive – William Paterson” folder or “Dropbox (William Paterson)” folder. You should see the folder you need to restore from in the contents. It should be marked “.backup”. If there are multiple folders, be sure to select the right one. Click the “Open” button to finish the restore process.



Items will be moved from the restore location to the corresponding locations in your home folder. This process will not take long. You will be notified when the process is done. You can quit the Terminal application.



The next time the backup script runs, you will see the prompt that the current and last known backup are different. This time click the “No” button.