

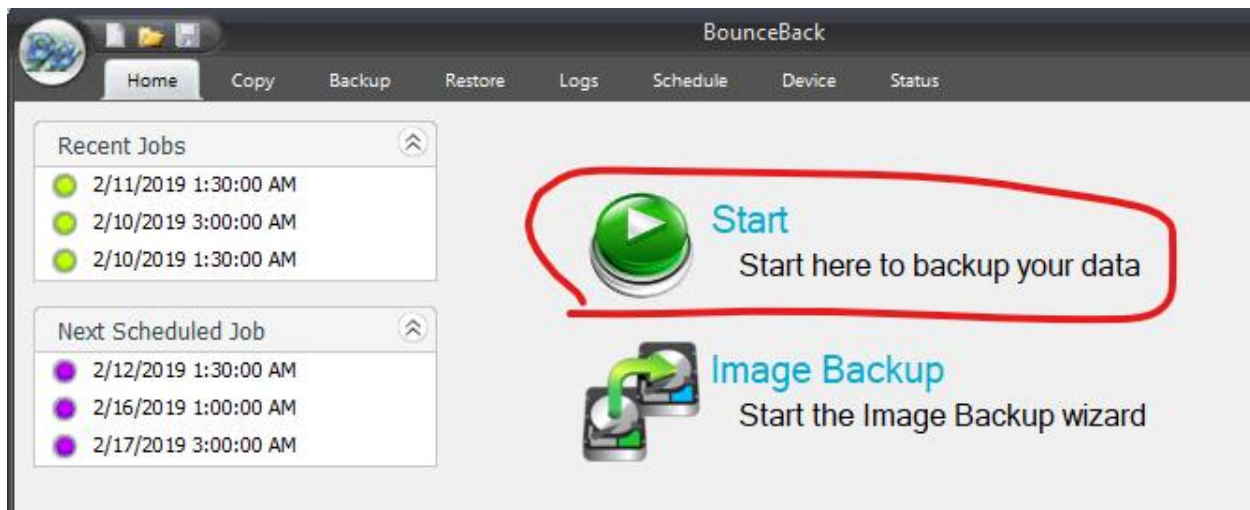
Guide to Create a weekly full backup, a daily differential backup, and a monthly image backup (With Retention)

This guide will provide a step-by-step instruction on how to create, schedule, and implement backup jobs for a weekly full backup, a daily differential backup, a monthly full image backup, and a retention job. This is the recommended way to backup all your data while making sure that you don't run out of space over time. Contents:

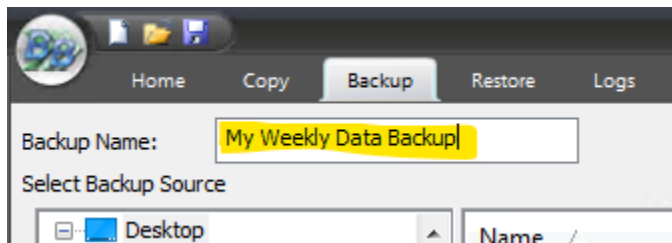
1. Creating the weekly full backup
2. Creating the daily differential backup
3. Creating the monthly image backup
4. Creating backup retention policies for your scheduled backups

1. Creating the weekly full backup

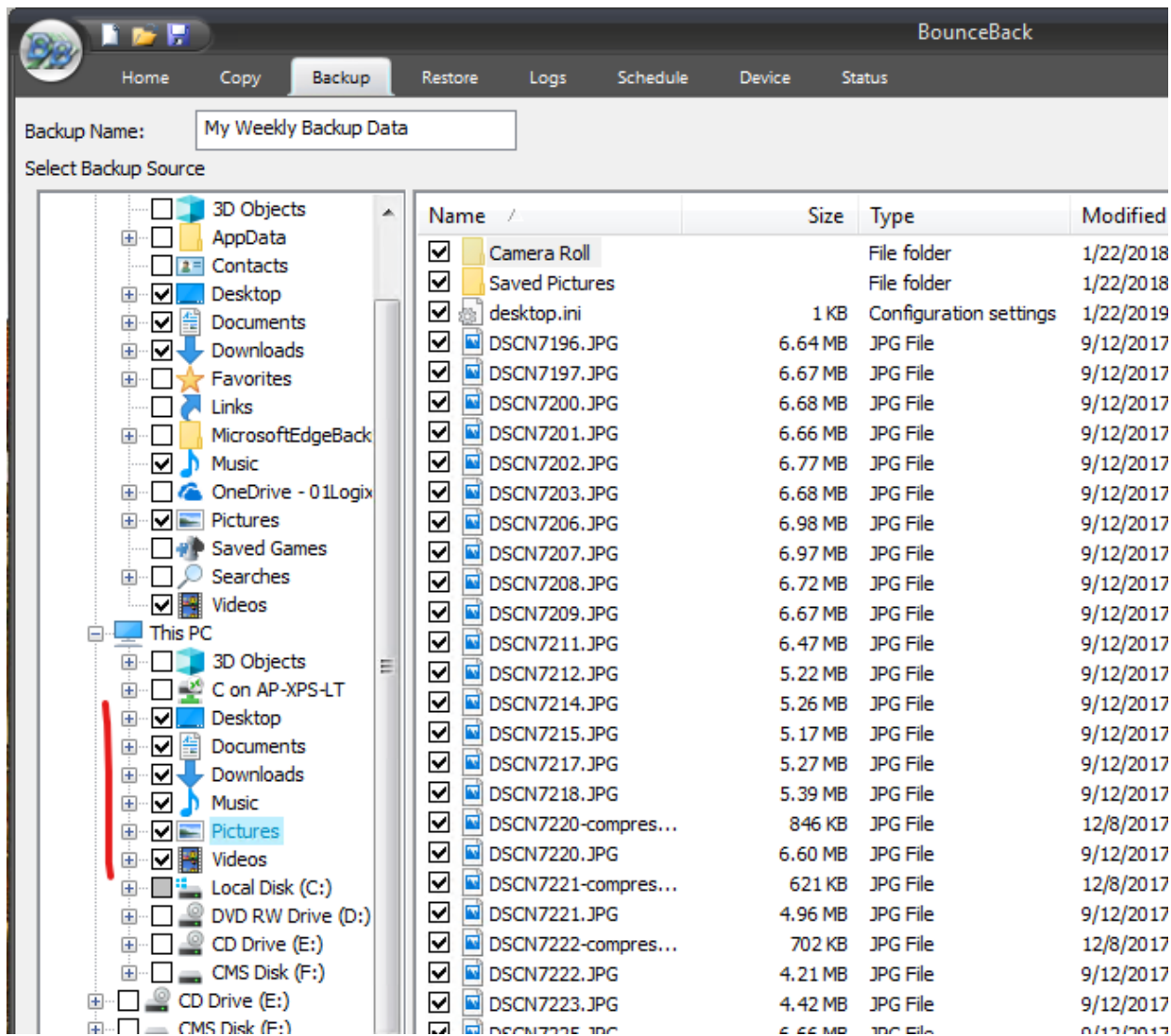
First, click on the Start button or the Home window to begin this process.



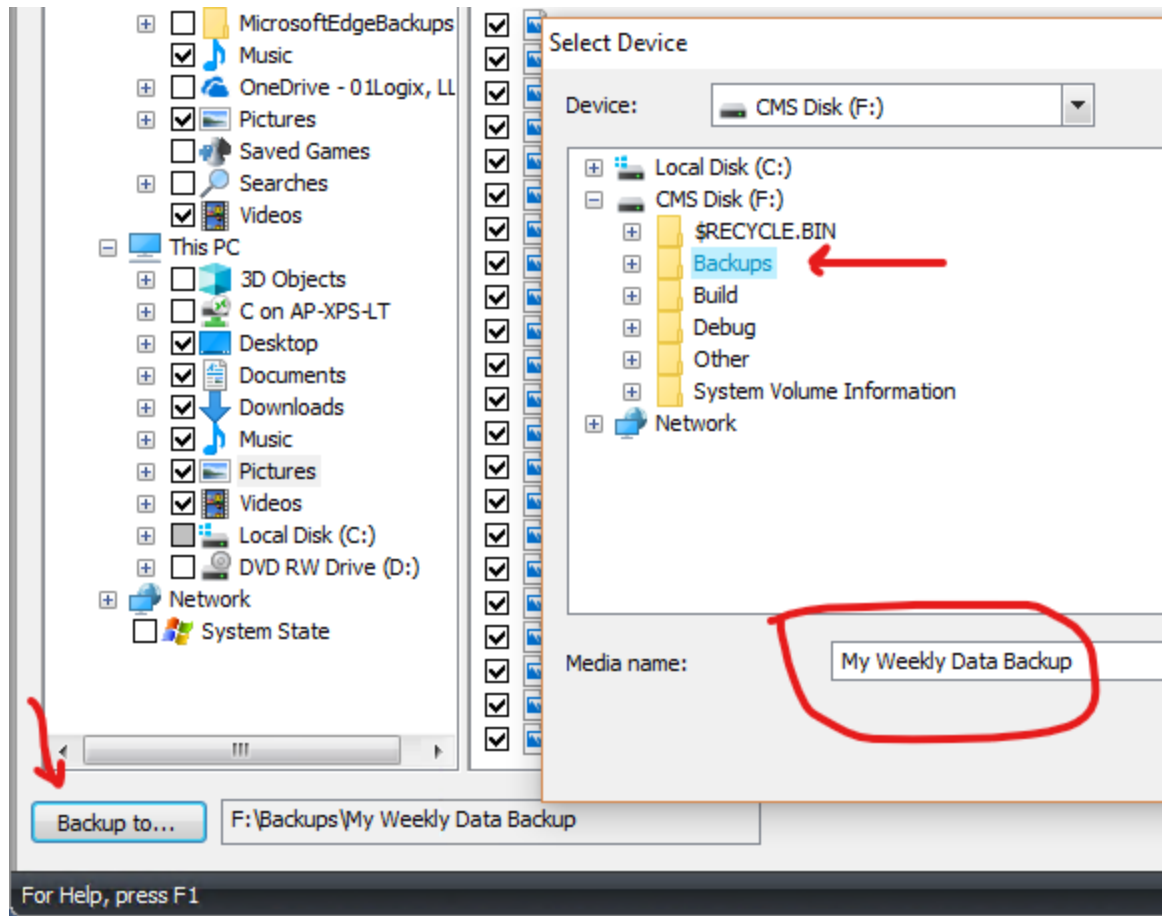
From here you are going to assign a name to the backup job, you will want to remember your backup name.



Now that you have created the name for the backup job, we are going to select the files we want to backup. Remember that since this is a file backup and not an image backup we only want to backup files that are documents, media, and program data that you have from your programs. You would never want to backup your Windows folders, and system files because they are constantly in use. These files are constantly changing and are not recommended for file backups. You will receive errors if you try to restore those files onto another computer, and you can potentially corrupt your system. It's best to do backups on files and folders that you use like media, documents, and program data that is used for your programs.



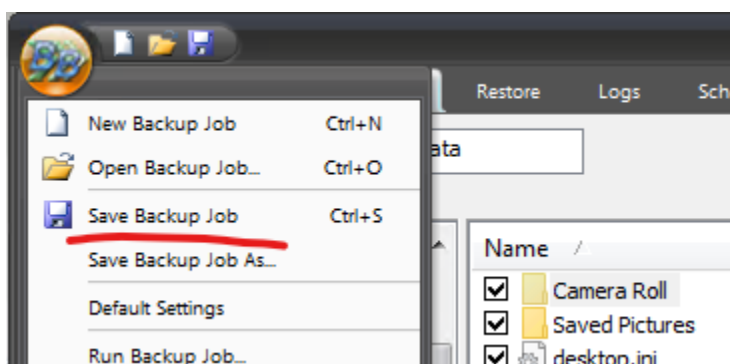
After selecting your files and folders, click on "Backup to" button. This will allow us to select the destination of where you want to store the backups once it has finished being created. Generally, you would want to backup your files to an external hard drive so that in the event this computer crashed, you would still have your backups containing your files and folders on hand. Additionally, please match your backup name to your media name which can be found under "Backup To". (Please refer to the image below)



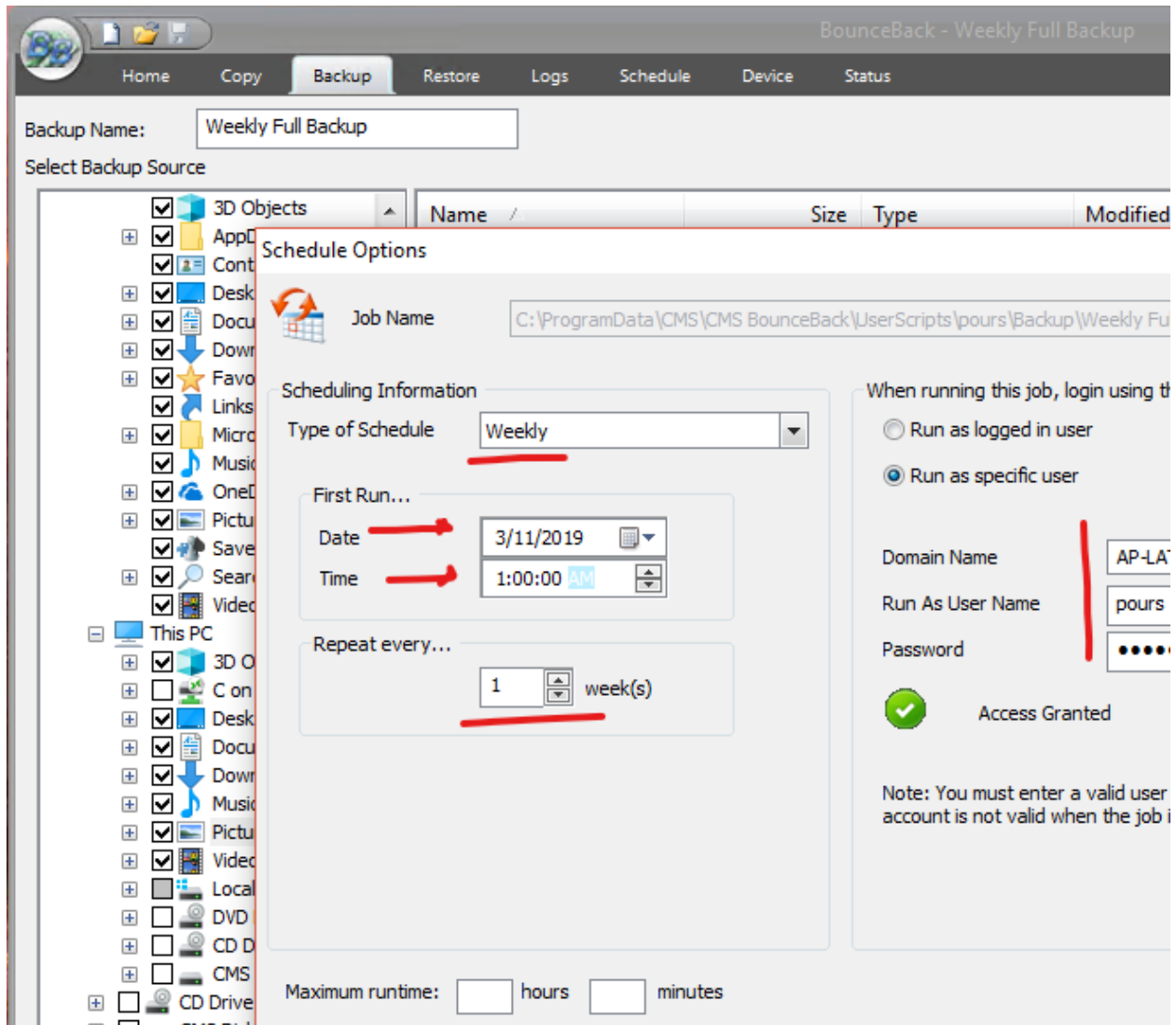
Next, click on Settings and look at the configuration in backup settings. The write mode which has the options of "Overwrite media" and "Append to media". For this particular backup you are going to change to "Append to media", since we will be creating a retention policy for these weekly backups. For the "backup mode" we will leave it the way it is because it is already under the option that we want for this particular job. You can leave the other options alone for now and click ok.

Network Credentials		Custom Commands		
Backup	Filters	Notification	Encryption	Run As
Configure the general backup options.				
<input checked="" type="checkbox"/> Compress backup files				
<input checked="" type="checkbox"/> Backup security and permissions (ACL)				
<input type="checkbox"/> Automatically eject media at the end of job				
<input checked="" type="checkbox"/> Enable Open File Backup				
<input type="checkbox"/> Enable Drive Letter Management				
<input checked="" type="checkbox"/> Backup empty folders				
After backup action:	Do nothing			
Destination:	F:\Backups\My Weekly Data Backup			
Verify Mode				
Mode:	Normal			
Perform fast verification of media indexes only.				
Write Mode				
Mode:	Append to media			
Append to media, automatically format any blank or unrecognized media.				
Backup Mode				
Mode:	Full			
Backs up all selected files, and marks each file as backed up.				
OK Cancel Help				

Now for the first backup we are going to click on the round BB button (top left) and select "Save Backup Job".



Now you have created the Backup job, but you want to place it on a weekly schedule. Click the Schedule button at the bottom right so you can create the weekly schedule.



For this example, we are going to start the weekly backups on the 11th. We are going to set the time to 1AM so the backup process won't be during anytime that you may want to use the computer. Then you are going to have it repeat every week on that Monday. Next change the "run this job" option to "run as specific user" and enter your windows login credentials. If you don't have a domain or if you are not in a custom workgroup, then you can leave the domain blank. After checking the credentials, click ok.

If we go to the schedule tab, you will notice your weekly scheduled full backup.

The screenshot shows a software interface with a top navigation bar containing 'Home', 'Copy', 'Backup', 'Restore', 'Logs', 'Schedule', 'Device', and 'Status'. The 'Schedule' tab is circled in red. Below the navigation bar is a 'Scheduled Jobs' table with the following data:

Job Name	Type	Run As	Last Run
Weekly Full Backup	Weekly	AP-LATITU...	3/3/2018 4:26:51 PM
My Backup Retention	Weekly	AP-LATITU...	3/3/2018 4:26:57 PM
Daily File Backup	Daily	AP-LATITU...	3/3/2018 4:26:59 PM
Monthly Image Backup	Monthly	AP-LATITU...	3/3/2018 4:27:04 PM
My Weekly Data Backup	Weekly	AP-LATITU...	

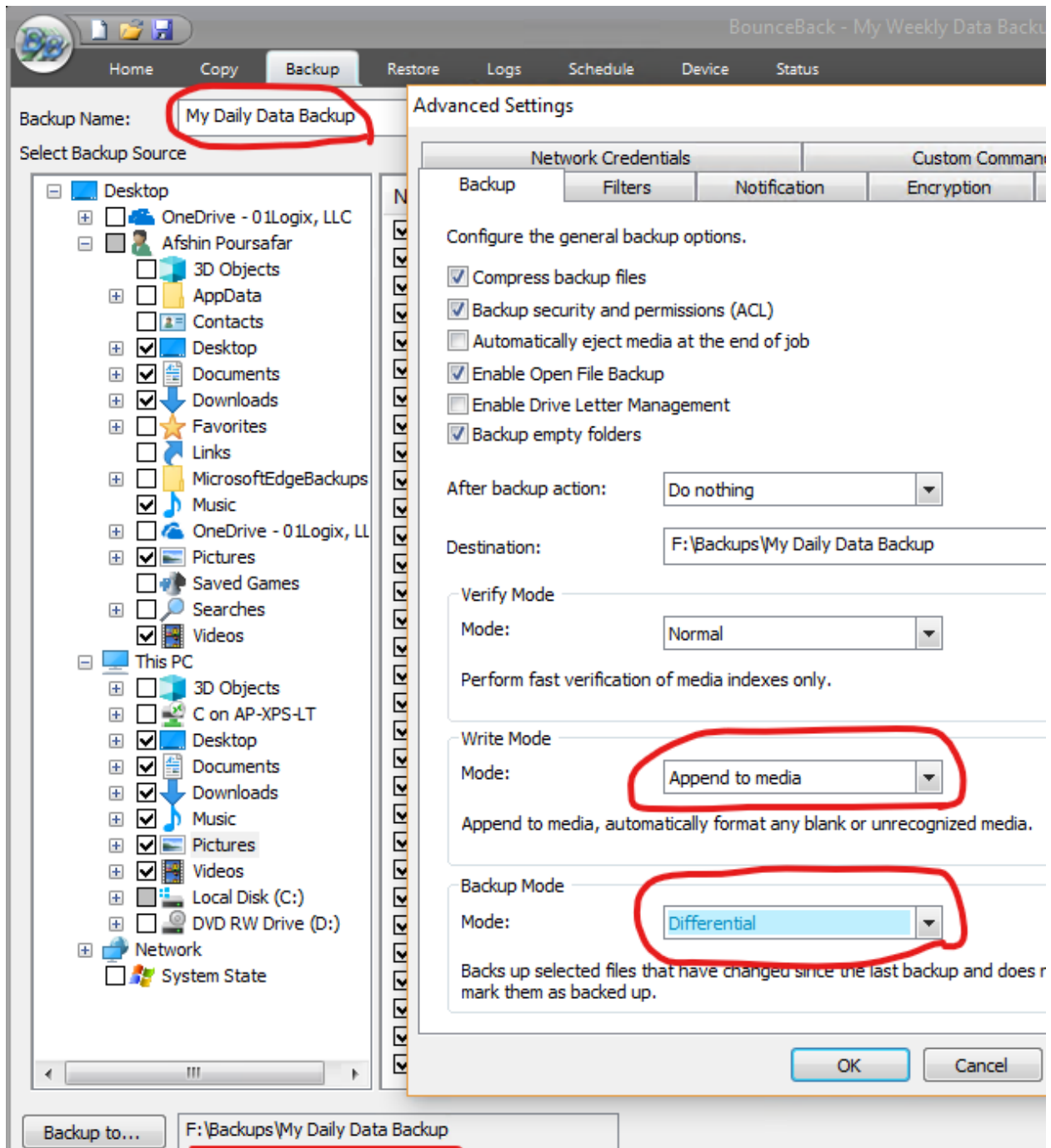
Now that you have created your weekly schedule, let's go ahead and create your daily differential. Go back to the backup tab to start on your daily differential backup job.

2. Creating the daily differential backup

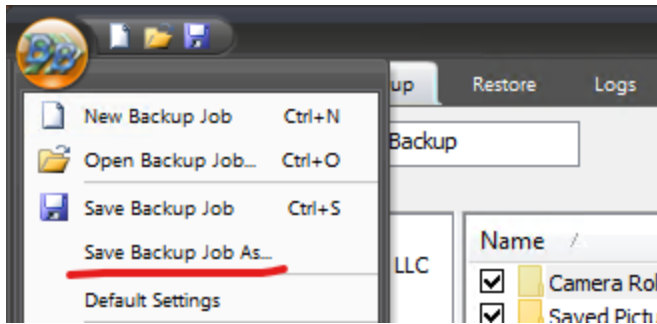
When working on your second job you should remember that you technically are not on a new job yet but rather the previous backup job you were on, your weekly full backup. You are going to edit the one we have here and save it as a new file all together. This way, you won't have to reselect the files and folders you want to backup.

Enter the new name of the daily differential backup job name, then you can highlight and copy the name so you can paste it in the media name entry when we click on the "backup to" button. This just makes it easier instead of typing the whole naming convention over again. Then click ok

Go to settings and change the Write mode to "append to media" and change the mode to "Differential". Afterwards, click ok.

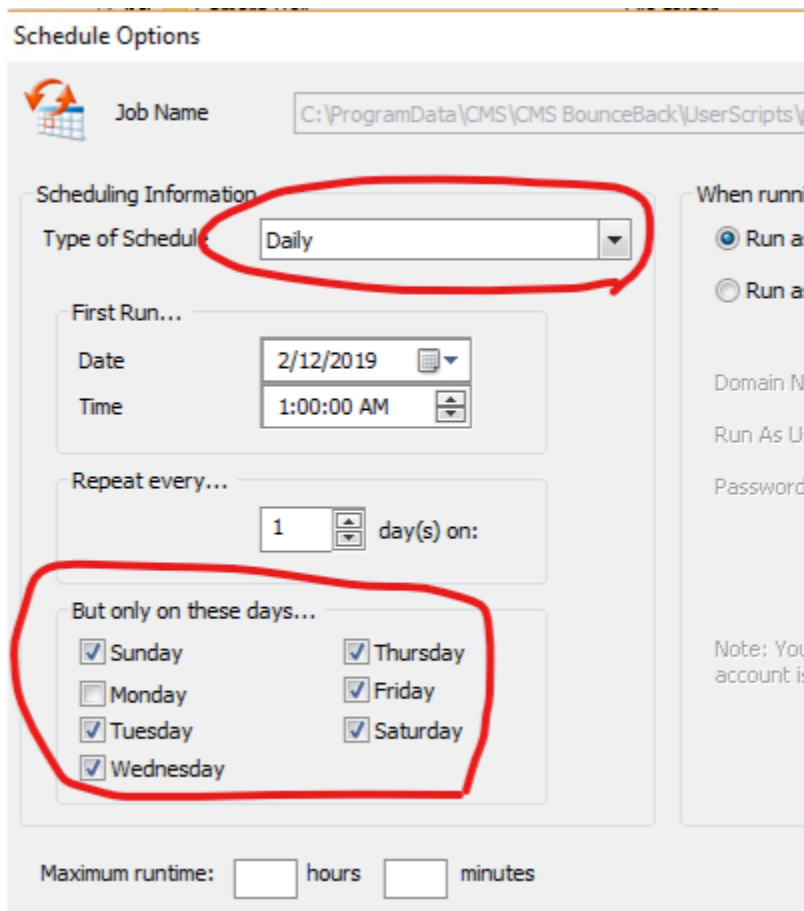


Next go to the BB Logo on the top left and select the “Save Backup Job As” option. This is very important because up until this point, the program thinks you are editing the first job which is the weekly full. If you did a normal save, then you would overwrite over that file when you want to create another one so, make sure to click the “Save Backup Job As” option.



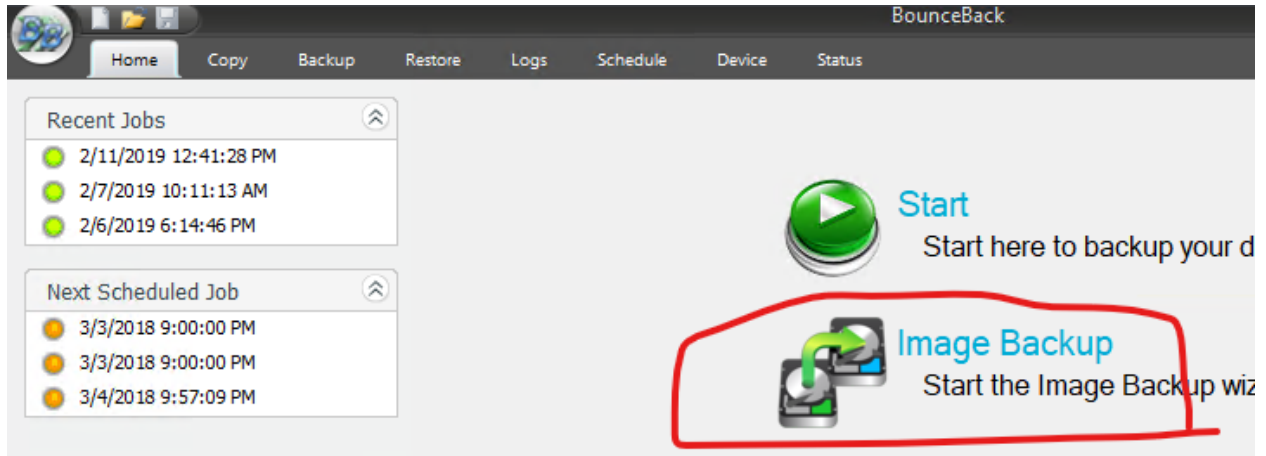
Check the name to make sure it matches the same naming convention that is in the backup name. If it is not the same, then change it to make it the same.

Next, we are going to go to schedule button so we can plan our daily backups. For this example, we are going to set this schedule to daily, and you want it to start 1 day after your full backups so let's place this on the 12th. You are going to set the time again to 1AM and you are going to let it repeat every day except Monday because Monday is when the full backup takes place. Go ahead and change the "run this job" option to "run as specific user" and enter your windows login credentials like before. Click ok and when you go to the schedule tab, both jobs should be there.



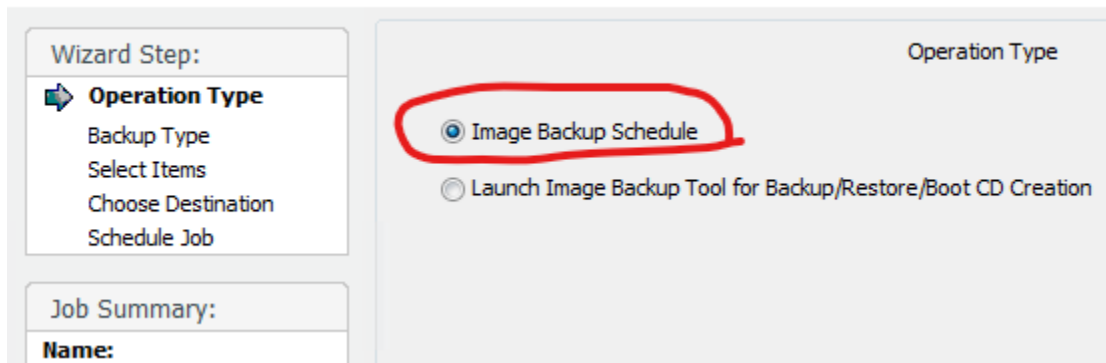
3. Creating the monthly image backup

Now that you have created your weekly and your daily backup schedule, let's now create your monthly image backup job. Since this is an image backup and not a file based backup, you would need to click on the home tab then click on the "Image Backup" button.



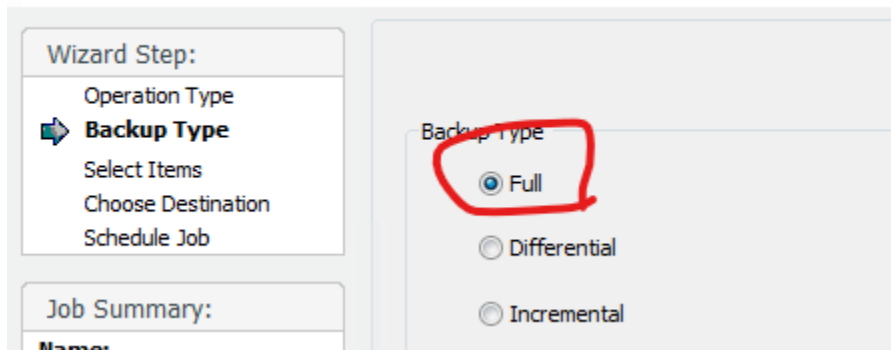
From here you are going to select "Image Backup Schedule" and click next.

Image Backup Wizard

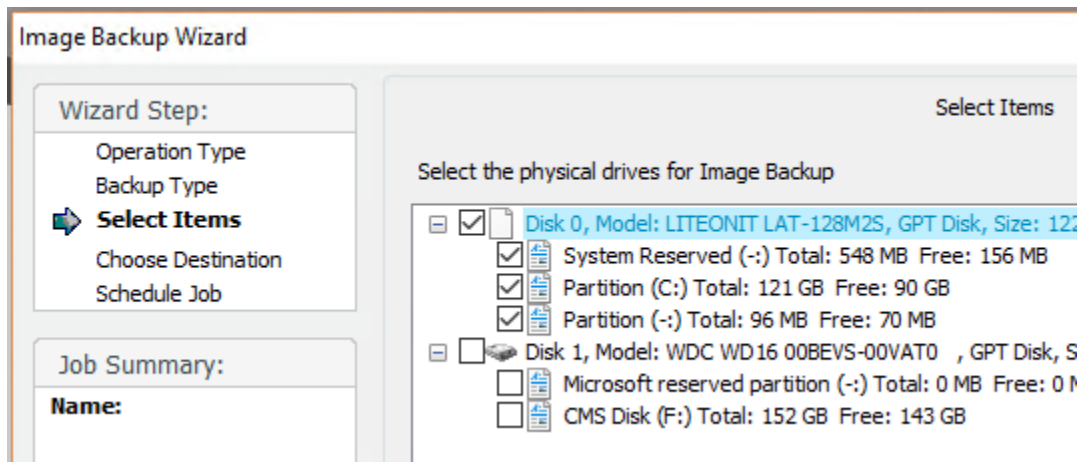


For image backups, you are going to select Full and click next.

Image Backup Wizard



Here is where you select your physical drive for image backup. For this example, we are just going to select the entire Disk 0 (my internal drive) and all its partitions, click next.



Type a name for this image backup and choose the backup destination or the location of where this image will be saved. As before, you ideally want to store these types of backups on a different, perhaps, external drive so that if your system does crash, you have your image backup on a complete different physical drive where you can now perform restores of that image. Keep the image type "Used sectors" and uncheck "Overwrite previous image backup". Keep the "Compress the backup" option and leave the "Verify after backup" option unchecked. Then click next.

NOTE, using the underscore "_" character:

Retention will not work on your Image Backups if your Image "Backup Name" contains the underscore "_" character. This is due to the way the algorithm identifies backups, stripping the underscore character and any following information to match an Image backup name.

Click next, here is where you are going to make your schedule for the image backup. You are going to change the type of schedule to monthly and change the first day to 13th. You are going to change the time to 3:00AM so that you have two hours for your daily backup before the full image kicks in. You are going to change the repeat options to once every month on the first of the month. As before you are going to change the "run this job" option to "run as specific user" and enter your windows login credentials. After checking the credentials, you can click Finish and now your image backup schedule that you created is now in the schedule tab ready for its first image backup.

Image Backup Wizard

Wizard Step:

- Operation Type
- Backup Type
- Select Items
- Choose Destination
- Schedule Job**

Job Summary:

Name:
My Monthly Image Backup

Destination:
F:\Backups

Contents:
Image Backup (Full)

Schedule Job

Job Name: C:\ProgramData\CMS\CMS BounceBack\...

Scheduling Information

Type of Schedule: Monthly

First Run...

Date: 2/13/2019

Time: 3:00:00 AM

Repeat...

On the 1 of the month

of every 1 month(s)

When running:

- Run as local system
- Run as service user

Domain Name: ...

Run As User: ...

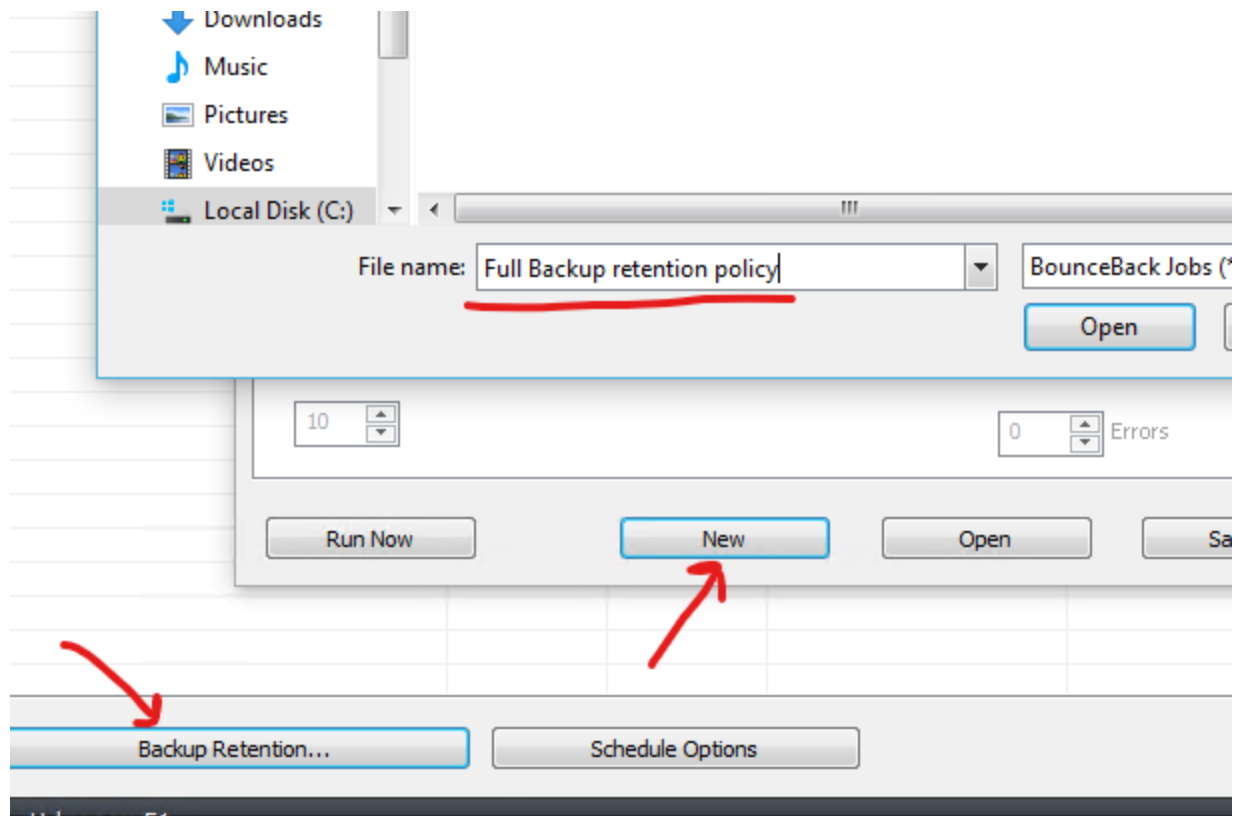
Password: ...

Note: You must have administrative privileges to schedule jobs.

4. Creating backup retention policies for your scheduled backups

Now that you have that you have all three backup jobs scheduled you are going to make retention policies for each of these backup jobs. Remember, that a retention policy is a way to instruct BounceBack to delete old backups so you don't lose space over time. It looks at how many backups you have and if there are more backups than what the retention was set for, it will delete the oldest backups.

Let's first create a retention policy for our weekly full backup. From the Schedule tab, click on "Backup Retention" and from there you click on new. Here we are going place the name of the backup we are making the retention policy for and we are going add the words "retention policy" so that you know that this is the retention policy and not backup.



Click open, and it will say that this it will reset everything to default. Go ahead and click yes.

From here you are going change the “Backup type to process” as normal backup since this is a file based backup and not an image backup. You are going to change the backup setting to “count” only. This is a way easier system to work with and will make sure there are no confliction or off days on your backup retention policy. Next you are going change the “maximum valid backup count” to what you want you want. Remember that this is a weekly backup so if you change the number from 1 to let’s say 3, then that means that you will have 3 backup files or 3 weeks’ worth of backups. Since we want to have full redundancy we are going to put the maximum valid backup count to 4. This will give us about a month’s worth of backups.

Configure Backup Retention

The screenshot shows the 'Configure Backup Retention' dialog box with the 'Basic' tab selected. The 'Job Name' field contains the path 'C:\ProgramData\CMS\CMS BounceBack\UserScripts\pours\Utility\Full Backup retention policy.nbk'. The 'Keep backups using this setting:' dropdown is set to 'Count'. The 'Backup type to process:' dropdown is set to 'Normal Backup'. The 'Maximum backup age:' is set to '1' month. The 'Minimum valid backup count:' is set to '4'. There are checkboxes for 'Maximum warnings allowed for a valid backup' and 'Maximum errors allowed for a valid backup', both currently unchecked. The 'Warnings' and 'Errors' dropdowns are both set to '0'. At the bottom, there are buttons for 'Run Now', 'New', 'Open', and 'Save...'. Red underlines are present under the 'Count' dropdown, the 'Normal Backup' dropdown, the '1' spinner, and the '4' spinner.

Now click on the advance tab. You are going to change media type to process to disk because you are going to be backing up to a disc drive. Next, you are going to uncheck the remove index logs options and go to then go to the Process media name field. This is important because this is what tells the retention which backup name to look for, so it can place the retention rules on them. I am going to place the exact name I have for my weekly full backup into the field.

The screenshot shows the 'Configure Backup Retention' dialog box with the 'Advanced' tab selected. The 'Backup media type to process:' dropdown is set to 'Disk'. The 'Process only backups containing this media name:' field contains 'My Weekly Data Backup'. There are three checkboxes: 'Delete only incremental and differential backups', 'Remove index/logs even if backup file cannot be deleted', and 'Report-only mode - just log the results but take no action'. All three checkboxes are currently unchecked. Red underlines are present under the 'Disk' dropdown and the 'My Weekly Data Backup' text field.

Now click on save and the name should already be filled at the bottom because you created a new one when you click on “open” earlier. If the name is not there then place the name of the backup we are making the retention policy for and we are going add the words “retention policy” so that you know that this is the retention policy and not the backup.

Now if you notice, your Backup retention is not in the schedule tab yet; and that is because you have not added the retention policy to the schedule yet. So, you are going to click on add so we can add the retention to the schedule.

From here you are going to click on the small little down arrow at the top right, so you can select your backup retention policy that you have created for your weekly full backup. Usually we place them in the Utility folder in the BounceBack user script folders but if you placed your backup jobs or scripts along with your retention policies scripts in a different folder you can go to them here. Afterwards, click open and from here you can start to create the schedule for the backup retention. You want to make the retention schedule match the backup schedule. The only difference you are going to make is that you are going to place the retentions 5 minutes before the backups. That way, the retention looks to see if it needs to delete any older backups first, then your backups will run 5 minutes later. So, for this example you are going to set the date to the 13th but instead of 1am you are going to set to 12:55am to let the retention go before the weekly full backup. Like before change to run as specific user and check your windows login credentials. Then click ok.

Schedule Options

Job Name: C:\ProgramData\CMS\CMS BounceBack\UserScripts\pours\Utility\My Weekly Data Backup retention policy.

Scheduling Information

Type of Schedule: Weekly

First Run...

Date: 2/13/2019

Time: 12:55:00 AM

Repeat every... 1 week(s)

When running this job, login using this account

Run as logged in user

Run as specific user

Domain Name: AP-LATITUDE

Run As User Name: pours

Password: [Empty]

Check Credentials

Note: You must enter a valid user account in order to run this j

And now you have created your first retention schedule. Now you will do the same process for your daily differential backups and your monthly full image backups.

In the schedule tab go to backup retention again. Click on "New" and enter the name of the daily differential job name and then add "retention policy" and press open.

Like before it will tell you that this will default all the setting; click yes. Now you are going to change backup process to normal and change backup setting to count. From here choose how many files you want to retain before the retention policy deletes the oldest file. Since this is a daily differential backup and you have a weekly full backup once a week, recommend setting this to 6. So, after 6 backup files it will delete the oldest differential backup file from your daily differential backups.

Next go to the advance tab. Change type to process to disk and uncheck remove index logs. Then you are going to place the daily differential media name so this retention policy knows to look for these particular backups. Double check everything just to make sure, then click on save.

Make sure that your job name has "retention policy" at the end so you can know the difference between the backup jobs and the retentions.

From here click add and then select the job schedule button so you can add your daily differential retention policy to the schedule. As before you are going to have the retention run 5 minutes before the actual job, so it can delete older backups before making new ones. For this daily differential example, you will be putting the time again to 12:55am so that the retention can run 5 minutes before the daily backups. Like before change to run as specific user and check your windows login credentials. Then click ok.

Now it's time to finish off with creating your monthly image retention policy.

Go back to the schedule tab and go to backup retention. Click on New and place the name of the monthly full image job name and then add "retention policy" and press open.

Click ok and reset everything to default values. Next change the Backup type process to "Image backup" since this is for our monthly full image backup and then change the backup setting to count. From here you are going to put 2 as the maximum valid backup count so that you will have 2 months' worth of full image backups.

The screenshot shows the 'Basic' tab of a configuration window. It features two columns of settings. The left column is titled 'Keep backups using this setting:' and contains a dropdown menu set to 'Count', a 'Maximum backup age:' section with a spinner set to '2' and a dropdown set to 'Months', and a 'Minimum valid backup count:' section with a spinner set to '2'. The right column is titled 'Backup type to process:' and contains a dropdown menu set to 'Image Backup'. Below this are two unchecked checkboxes: 'Maximum warnings allowed for a valid backup:' with a spinner set to '0' and 'Warnings', and 'Maximum errors allowed for a valid backup:' with a spinner set to '0' and 'Errors'. At the bottom, there are buttons for 'Run Now', 'New', 'Open', 'Save...', and a partially visible 'OK' button.

From here go to the advance tab and change the Backup media process to disk and uncheck the remove index logs. (Now I just want to mention that technically you don't need to place anything in the process media name because this is the only image backup job that you have. If I had more than 1 image job, then you would want to place the media name in this field, so the retention can know what backup it needs to look for to place the retention rules on. With that being said, for this example you are still going to place the media name in here in case you decide on making another image backup job in the same destination location.) After you have double checked everything, then go ahead and click on save.

The last step we are going to do is add that retention policy to the schedule. Click on add to find your retention job that you have just made. Remember that by default your retention policies would be in the utility folder in your BounceBack program data but if you saved them somewhere else, now would be the time to search and locate them. Then change the schedule to monthly and let's put the retention 5 minutes before the monthly image backup. In this example, that would be on the 13th at 2:55am. Like before change to run as specific user and check your windows login credentials. Then click ok.

And that is it. So now you see your Daily differential backup, your weekly full backup, your monthly full image backup, and the retention policies for each. This will ensure you have good redundancy and will ensure that your backups won't clog up space on your drive.