

Robocopy Incremental Data Backup & Cleaning

1. What is Microsoft Robocopy?

Robocopy is a utility built into Windows to move or copy files and folders. Traditionally a command-line-based utility, it can be scripted and automated.

An online search for “Robocopy Commands” will reveal the various parameters and options that can be used in conjunction with the utility.

2. Script Syntax Breakdown

Basic Robocopy syntax: Robocopy <Source> <Destination> [Options]

Provided in this zip package is an example script (.bat file) named **Backup & Cleaning** that moves files and folders from the C:\Test folder to the D:\Test folder, then deletes them from the C:\Test.

Robocopy C:\Test D:\Test /MOVE /COPY:DT /FFT /XF *.dnr /MINAGE:90 /E /XD C:\Test\Exclude *foldertoexclude

a. Source

C:\Test (C is a drive letter and Test is a folder on drive C).

The source can also be a server (e.g. “\\server address path”).

Quotes must be used if the path contains spaces.

b. Destination

D:\Test (D is a drive letter and Test is a folder on drive D).

c. Options

/MOVE	Moves files and folders to the destination then deletes them from the source.
/COPY:DT	Copies data and time stamps file information.
/FFT	Assumes FAT file times (important when copying from NTFS to FAT).
/XF	Excludes files matching the specified names or paths. Here any file with the extension dnr is excluded.
/MINAGE:n	Specifies the minimum file age (excludes files newer than n days or date). Here the last 90 days of data are kept on the source.
/E	Copies subfolders (this option includes empty folders).
/XD	Excludes folders matching the specified names or paths. Here the folder Exclude located in the Test folder as well as any folder with the word foldertoexclude in its name are excluded.

WORK-*FLOW*

Specialized Flow Cytometry Solutions

d. Launching the script

- Right-click on the script and click Edit to modify it (change source & destination, and add/remove options).
- Close and Save the script.
- Double click the script to launch it.

Alternate script to clone data from one drive (C) to another (D):

Robocopy C:\ D:\ /MIR /XO /COPY:DT /FFT

/MIR Mirrors a folder tree.

/XO Excludes older - if the destination file exists and has the same date or is newer than the source it will not be overwritten.

3. Script Automation

a. Open Task Scheduler

b. Create a Basic Task (see example below):

Name: Backup & Cleaning

Trigger: Monthly (i.e. 01/01/2020 12:00:00 AM), All Months, Days=1

Action: Start A program (browse for the script)

4. Miscellaneous

- To prevent the deletion of empty folders, add an x.dnr file in each folder. The file attribute can be set to *hidden* to minimize unwanted deletion.
- The extension dnr is simply an acronym for **do not remove**.
- When launching the script, a command-line window opens and displays the progress of the data transfer. To run the script in stealth mode, use the provided **Backup & Cleaning (stealth)** script. This script must be modified to specify the location of the Stealth.vbs file (also included) and the location of the **Backup & Cleaning** script.

Be sure to test any script prior to use on an actual dataset.