

Reducing Videos whilst Retaining Metadata

These instructions are to be used to recover the 'Time Created' metadata for video files when this has been lost, for example, if you have converted AVI to Mp4 or have reduced the size of a video.

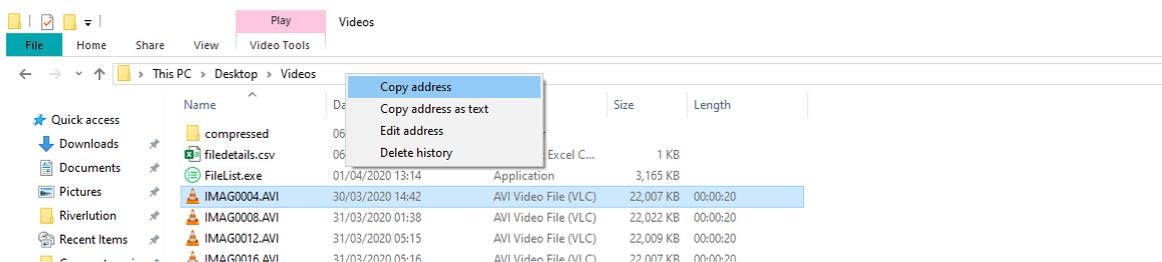
For those wanting to reduce file sizes and/or convert to Mp4, **Free Batch Video Converter** is recommended: <https://download.cnet.com/Free-Batch-Video-Compressor/3000-13631-4-76476172.html>. This will both convert and reduce at the same time and is very easy to use.

There are a number of processes – collecting the metadata, compressing the files, and replacing the new creation date with the original date and time that the video was taken by the camera.

For clarity, we will refer to the raw videos as the 'original' files and the newly converted or compressed videos as the 'converted' files.

Extracting metadata from the original files

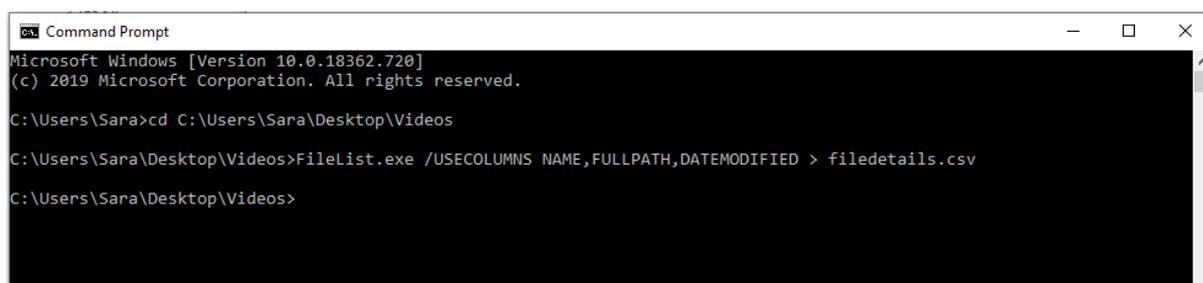
1. Download **FileList** at <https://www.jam-software.com/filelist>. Extract the zipped files to a common and easily-accessed location such as the desktop.
2. Open the folder where the original files are stored, i.e. before compression or conversion. **Copy and paste** the extracted executable file **FileList.exe** here. This could be an SD card, but in this example it is **C:\Users\Sara\Desktop\Videos**.
3. In the file directory, right-click on the address bar and click **Copy address**.



4. Click the **Windows** button and type **cmd** to open the **Command Prompt**.
5. In the command prompt, type **cd**, then a **space**, then press **Ctrl** and **V** together to paste the copied address. Press **enter**; this will be returned on a new line if successful. **NOTE**: If your videos are on a different drive, e.g. an SD card or an external hard drive, you will need to navigate to this drive first (tip: check **My Computer** to see which drive letter you need). For example, typing **D:** and then 'enter' will change to the D drive. You will see the drive letter returned on a new line, e.g. **D:\>**. You can then paste the address (after **cd** and a space).
6. Copy and paste the following line of script using the same **Ctrl** and **V** process:

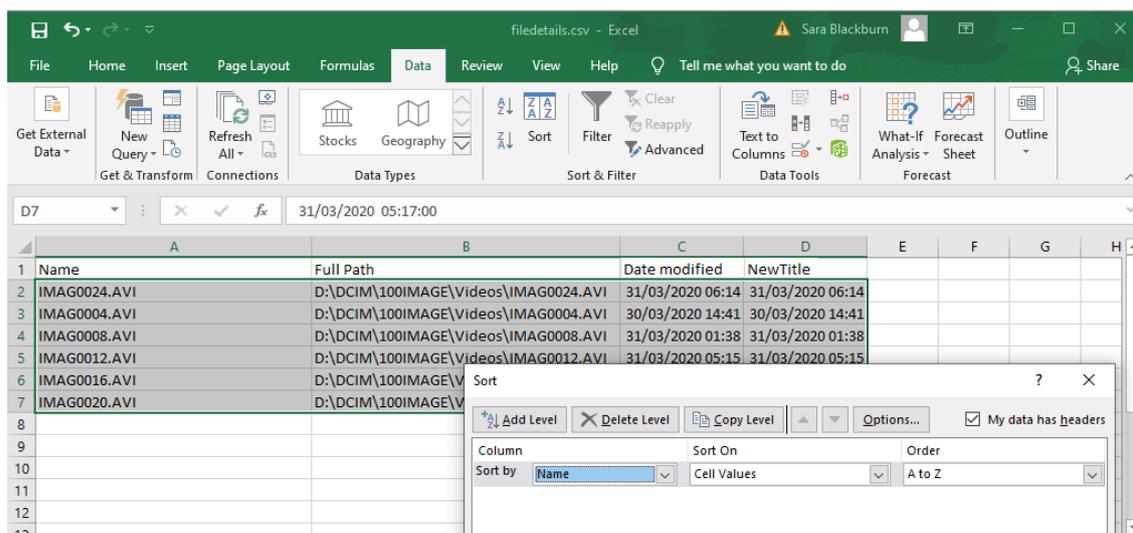
FileList.exe /USECOLUMNS NAME,FULLPATH,DATEMODIFIED > filedetails.csv

This will create a csv file called 'filedetails.csv' in the directory with your images in. Check that this file exists. You can now close the command prompt.



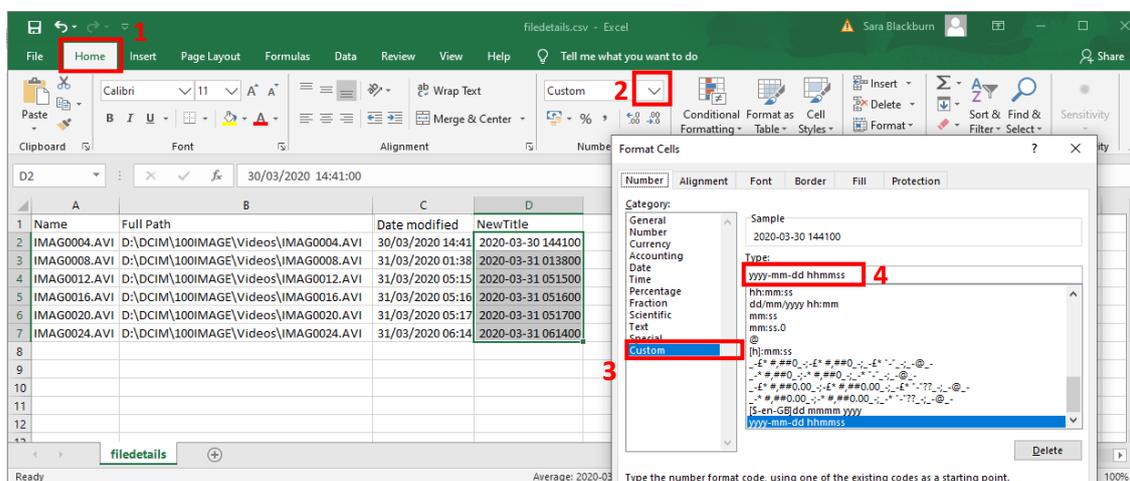
Editing the csv file

7. Open filedetails.csv file in **Excel**. We now need to tidy up the file and create a new column with a new filename containing the metadata.
 - a. Delete the top two rows to leave the headers: **Name**, **Full Path** and **Date modified**
 - b. Delete any rows below relating to any other files so that you have only the **original** files listed (e.g. there will be one for FileList.exe plus a row for any files you have converted using the program above if these are included from the sub folder).
 - c. Copy and paste the **Date modified** column into column D. Rename this as **NewTitle**.
 - d. Navigate to Data (1) and click **Sort** (2). Sort by the column **Name** on **cell values** and by **ascending or A to Z** (3).



Name	Full Path	Date modified	NewTitle
IMAG0024.AVI	D:\DCIM\100IMAGE\Videos\IMAG0024.AVI	31/03/2020 06:14	31/03/2020 06:14
IMAG0004.AVI	D:\DCIM\100IMAGE\Videos\IMAG0004.AVI	30/03/2020 14:41	30/03/2020 14:41
IMAG0008.AVI	D:\DCIM\100IMAGE\Videos\IMAG0008.AVI	31/03/2020 01:38	31/03/2020 01:38
IMAG0012.AVI	D:\DCIM\100IMAGE\Videos\IMAG0012.AVI	31/03/2020 05:15	31/03/2020 05:15
IMAG0016.AVI	D:\DCIM\100IMAGE\Videos\IMAG0016.AVI	31/03/2020 05:16	31/03/2020 05:16
IMAG0020.AVI	D:\DCIM\100IMAGE\Videos\IMAG0020.AVI	31/03/2020 05:17	31/03/2020 05:17
IMAG0024.AVI	D:\DCIM\100IMAGE\Videos\IMAG0024.AVI	31/03/2020 06:14	31/03/2020 06:14

- e. Highlight the column **NewTitle**. Navigate to **Home** (1) and click the down-arrow next to the format type (2). Click **More Number Formats...** at the bottom. In the **Category** box, click **Custom** (3). In the box under **Type:** enter **yyyy-mm-dd hhmmss**(4)
- f. Save the file in the original csv format. **NOTE:** do NOT open the file again in Excel or you will have to repeat the process due to Excel's autoforamtting.



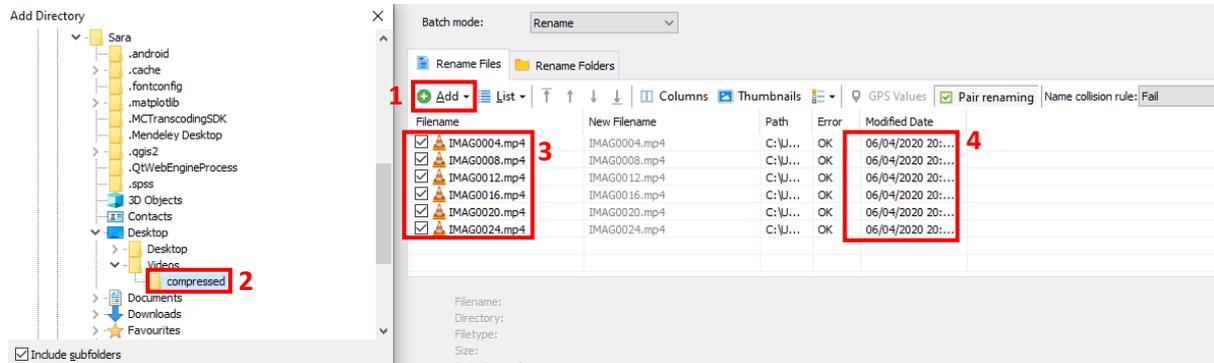
Name	Full Path	Date modified	NewTitle
IMAG0004.AVI	D:\DCIM\100IMAGE\Videos\IMAG0004.AVI	30/03/2020 14:41	2020-03-30 144100
IMAG0008.AVI	D:\DCIM\100IMAGE\Videos\IMAG0008.AVI	31/03/2020 01:38	2020-03-31 013800
IMAG0012.AVI	D:\DCIM\100IMAGE\Videos\IMAG0012.AVI	31/03/2020 05:15	2020-03-31 051500
IMAG0016.AVI	D:\DCIM\100IMAGE\Videos\IMAG0016.AVI	31/03/2020 05:16	2020-03-31 051600
IMAG0020.AVI	D:\DCIM\100IMAGE\Videos\IMAG0020.AVI	31/03/2020 05:17	2020-03-31 051700
IMAG0024.AVI	D:\DCIM\100IMAGE\Videos\IMAG0024.AVI	31/03/2020 06:14	2020-03-31 061400

Replacing the metadata

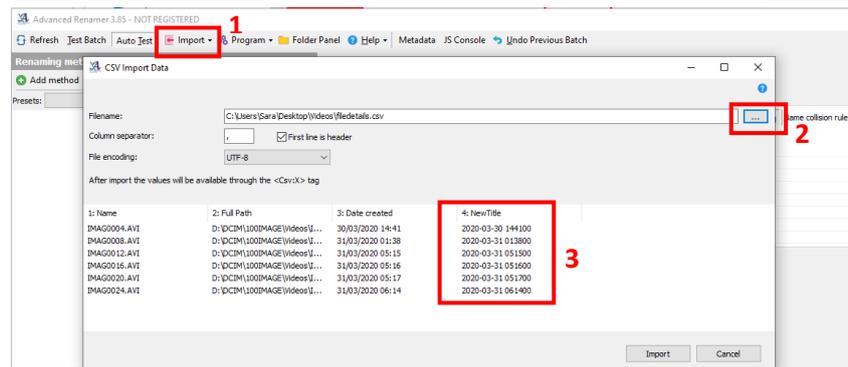
For this we will use a free program called **Advanced Renamer**, downloadable here:

<https://www.advancedrenamer.com/>

- In the Right-hand section, click **Add > Directories** (1) and choose the directory with the **converted** files (2). Click OK to import the files. Check that the filenames are in ascending name order to match the Excel sheet (3) and that the Modified Date is incorrect (4).



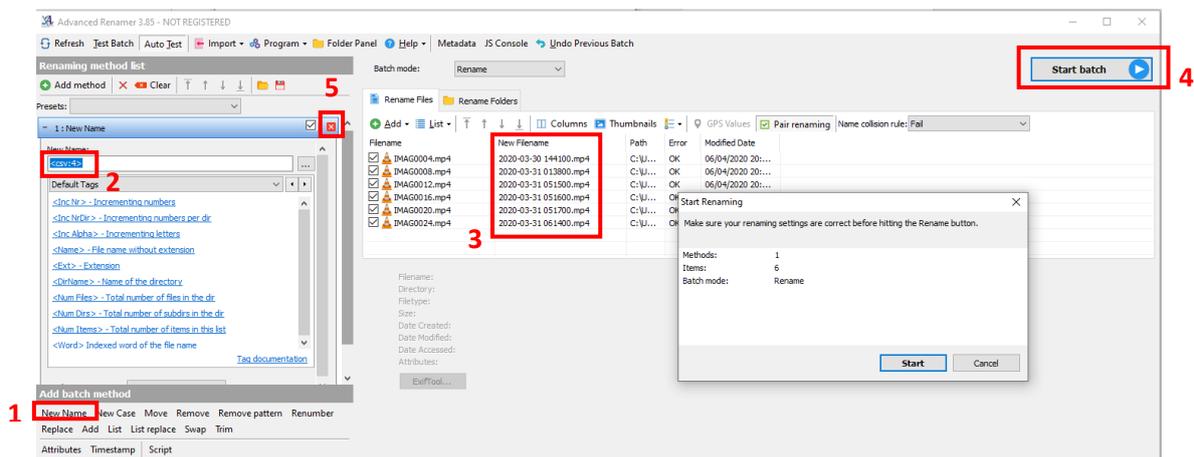
- Click **import > Data from CSV** (1). Click the dots next to the filename box and navigate to the **FileDetails.csv** file you created earlier (2). Check that column 4: **NewTitle** is there and that they mirror the **Date modified** column but in the specified format (3). Click **import**.



- In the bottom left-hand section, click **New Name** under **Add batch method** (1). In the top left-hand section, type **<csv:4>** into the **New Name:** box (2). Check that the **New Filenames** in the right-hand section now read the same as the values in the Excel file (3).

- In the top right-hand corner, click **Start batch** (4).

- Click on the **red X** to close the command in the left-hand panel (5).



Changing the metadata "Create Time"

Here we will need to do some simple coding. Download and unzip EXIFTOOL to your **desktop** from <https://exiftool.org/>. If you use a PC you will need to download the **Windows Executable: exiftool-11.93.zip (6.3 MB)** file – to do so, click [here](#). There are further instructions on the website.

1. Once extracted, rename "exiftool(-k).exe" "exiftool.exe". If you cannot see the extension .exe, just delete the (k-) section.
2. Copy and paste the exiftool.exe file to the location of the **converted** files. In this example, they are in the location **C:\Users\Sara\Desktop\Videos\compressed**.
3. Open the **Command Prompt** and navigate to this location by following steps 3-5 on p1.
4. Copy and paste the following line of script using the same **Ctrl** and **V** process:

```
exiftool "-alldates<filename" DIR
```

Where **DIR** is the directory where the **converted** files are stored, for example:

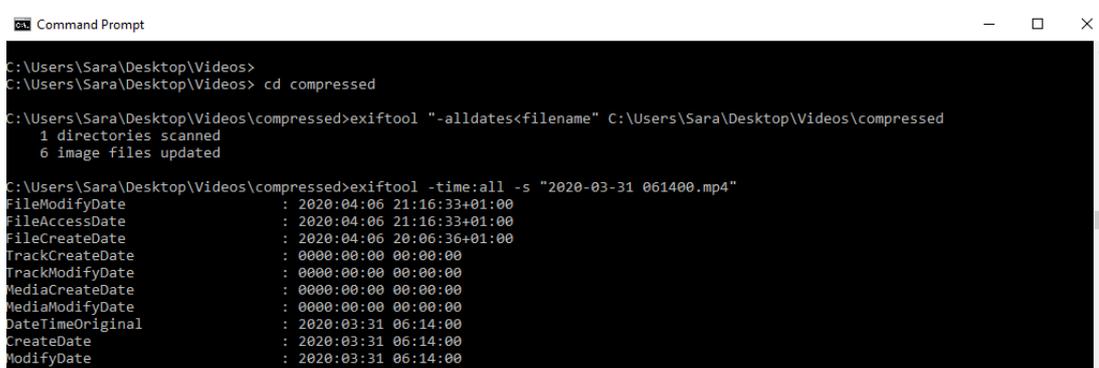
```
exiftool "-alldates<filename" C:\Users\Sara\Desktop\Videos\compressed
```

This will replace all of the dates and times with those captured in the filename. You should get a message that x number of files have been changed.

5. Check that the process has been successful by using EXIFTOOL to return the values from one file. For example, we will check a file called 2020-03-31 061400.mp4 using the following:

```
exiftool -time:all -s "2020-03-31 061400.mp4"
```

You should see that the DateTimeOriginal, CreateDate and ModifyDate values are now set correctly set to 2020:03:31 06:14:00.



```

Command Prompt
C:\Users\Sara\Desktop\Videos>
C:\Users\Sara\Desktop\Videos> cd compressed
C:\Users\Sara\Desktop\Videos\compressed>exiftool "-alldates<filename" C:\Users\Sara\Desktop\Videos\compressed
  1 directories scanned
  6 image files updated
C:\Users\Sara\Desktop\Videos\compressed>exiftool -time:all -s "2020-03-31 061400.mp4"
FileModifyDate      : 2020:04:06 21:16:33+01:00
FileAccessDate     : 2020:04:06 21:16:33+01:00
FileCreateDate      : 2020:04:06 20:06:36+01:00
TrackCreateDate     : 0000:00:00 00:00:00
TrackModifyDate    : 0000:00:00 00:00:00
MediaCreateDate     : 0000:00:00 00:00:00
MediaModifyDate    : 0000:00:00 00:00:00
DateTimeOriginal   : 2020:03:31 06:14:00
CreateDate          : 2020:03:31 06:14:00
ModifyDate         : 2020:03:31 06:14:00
  
```

Restoring the original file names

13. In Advanced Renamer, follow steps 8-9 to add the **converted** files and re-add the csv file.
14. We now need to rename the files by repeating step 10. In the bottom of the left-hand section, click **New Name** under **Add batch method**. In the top section under **New Name:**, type **<csv:1>** (note that we are now using column 1 and not column 4). This will fetch the original name along with the original extension, e.g. **IMAG0004.AVI.mp4**. Check that the **New Filenames** in the right-hand section now read the same as the original file names.
15. In the top right-hand corner, click **Start batch**.