Background

When a photo file (.jpg or jpeg file) is transferred to Google cloud for storage, the date and time the photograph was taken (e.g., Date Taken, DateTimeOriginal, Exif tag 0x9003) is removed from the jpg file and save in a separate json file that has the same name as the jpg file (e.g., photo1.jpg, photo1.json). If the jpg file is moved from Google cloud back to a computer, the jpg files can no longer be stored by "Date Taken" because the date taken is not stored in the jpg file and computer does not look at the json file when looking for date information.

When transferring JPEG files from the Google cloud back to a computer, it would be best if the data taken information is transferred from the json file back to the jpg file. The program ProcessJPGFiles_02 extracts the date taken from json file and inserts it into the metadata of the jpg file. Once the date taken has been reinserted into the jpg file, the json files may be deleted.

Prepare the JPG Files

If Google has removed the Date Taken metadata from the jpg file, as opposed to making it blank, a temporary data taken must be added to the jpg files. To add a temporary date taken to the JPEG files, do the following.

In file explorer:
- In the search line of file explorer enter *.jp*. All of the jpg and jpeg files will be shown.
- In the Ro above the filenames (e.g., over the name column), right click the mouse and select "date taken" so that file Explorer will display the "date taken" information for the jpg files.
- Select all of the jpg files.
- Right click on any selected file.
- Select "Properties".
- Select "Details".
- Select "Date Taken".
- Select to the right of the phrase "Date Taken".
- Add a date to the right of "Date Taken". Add a date that is easy to detect, such as a date in the future (e.g., 6/15/3900).
- Select OK.

File Explore will add the date taken field to the metadata of the jpg files. In specific, File Explorer will add the metadata with tag 0x9003 to the Exif portion of the jpg file. The ProcessJPGFiles_02 takes the date taken information from the json file and stores it in the Exif of the jpg file in the area that has the tag 0x9003. If the jpg file does not have metadata with the tag 0x9003, the ProcessJPGFiles_02 cannot insert the date taken information into the jpg file.

Instructions for Using ProcessJPGFiles_02

1.   **Store the Executable**

Store the executable file ProcessJPGFiles_02.exe in a directory on the computer. For example, the executable file could be stored in a directory such as
- c:\tmp_prog.

2.   **Add Directory to Path**

Add the name of the directory where the executable is stored to the system environment variable called Path, so that ProcessJPGFiles_02.exe may be executed from any directory on the computer. Do the following to add the directory to the Path variable.

In the taskbar search window type:
- edit the system environment variables.
- Select the prompt that says "Edit the System Environment Variables control panel". A window titled "System Properties) they will appear.
- Just above the bottom right-hand corner, select the button "Environment Variables".
- In the window titled "System variables", select the variable Path.
- Select the "Edit" button.
- Select the "New" button.
- In the space provided, enter the name of the directory where the executable is stored (e.g., c:\tmp_prog).
- Select the "OK" button on the "Edit environmental variable" window.
- Select the "OK" button on the "Environment Variables" window.
- Select the "OK" button on the "System Properties" window.

3.   **Open Command Prompt Window**

The ProcessJPGFiles_02 program is executed using a "Command Prompt" window. In the taskbar search window, type:
- Command Prompt.
- Select "Command Prompt App" icon. A command prompt window will open.
- In the Command Prompt window, go the directory where the jpg and json files are stored. For example, if the photos are stored in the directory F:\Italy, type:
  - cd F:
  - cd Italy

4.   **Execute ProcessJPGFiles_02**

While in the directory where they jpg and json files are located, type the following in the Command Prompt window:
- ProcessJPGFiles_02.exe

The program will:
- find all of the matching jpg and json files;
- extract all of the date taken information from the json file;
- create a new jpg file that has the same name as the original jpg file, but ends in _fixed.jpg; and
- insert the date taken information into the new jpg file.

After ProcessJPGFiles_02 has executed, the directory will contain three related files:
- file_name.json;
- file_name.jpg or file_name.jpeg; and
- file_name_fixed.jpg.

The file_name.jpg has the correct date taken information in it from the file_name.json file. After the _fixed.jpg files have been generated, the file_name.json and file_name.jpg files may be deleted.