

program rename\_raw

c  
c Program to rename raw image files.  
c By Michael Knappertsbusch, 11.8.2004.  
c  
c Version 4:  
c Modified from version 3 for raw image files generated on a PC, 13 March 2018  
c  
c Length of input files: 23 characters (for example 925011002aK0101-bin.raw).  
c Length of output files: 5 characters (0101r, for direct input to Trace\_AMOR1\_batch.out).  
c  
c The program reads the contents of the image files (640x480 pixel, 256 grey levels)  
c and writes it under a new name to disk.  
c  
c Example application: Preparation of images for the Trace program.  
c It renames black-white raw image files, that were generated with AMOR 2.8 and then  
c modified on a PC using Photoshop or ImageJ from grey-level tiff images to black- and  
c white raw images.  
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c Explanations:  
c Raw images have size of 640x480 pixels, 8 bit depth (256 grey levels).  
c A raw image has no header. But it is useful (for programming purpose) to apply  
c "word lengths" that correspond to the length of a Tiff header:  
c By standard the first 768 bytes of a Tiff file belong to the Tiff header (according  
c to Documentation of Nih-Image from Wayne Rasband); the following 640x480 bytes are the  
c contents of the image.  
c The total raw image size is  $640 \times 480 = 307200$  bytes.  
c The length of the Tiff header is 768 bytes, which is an entire fraction of 307200 bytes  
c ( $768 \times 400 = 307200$ ).  
c Therefore, in order to read the image by direct access the record length recl can be 768 bytes.  
c However, because this is a very long word, I choose half of this length, that is recl=384.  
c Then the number n of records needed to read the entire image will be twice as large, e.g. n=800.  
c  
c integer n,number  
c character\*25 list ! File list containing names of images to be renamed.  
c character\*23 input ! Name of image file to be renamed 925011002aK0101-bin.raw  
c character\*5 output ! Renamed output: 0101r  
c character\*384 byte ! Variable for the record with length 384.  
c

```
write(9,*) '*****'
write(9,*) '                                     *'
write(9,*) '*           Program Rename           *'
write(9,*) '*   Version 4, by Michael Knappertsbusch   *'
write(9,*) '*           Batch-operation mode           *'
write(9,*) '*                                     *'
write(9,*) '* Renames PC files, 23 chars long, incl. txt *'
write(9,*) '*                                     *'
write(9,*) '*****'
c
write(9,*) 'Enter list containing filenames'
write(9,*) '   (max. 25 chars)'
write(9,*) ' '
read(9,2) list
2  format(a25)
c
open(15,file=list,status='old')
number=0
5  read(15,6,end=99) input
6  format(a23)           ! 23 characters per input file name
   number=number+1     ! counts the number of files, that were renamed
c
c  determine name of output file:
c
output=input(12:15)//'r'
c
c  now open existing image files and files under new name output:
c
open(16,file=input,access='direct',
1  recl=384,status='old')
open(17,file=output,access='direct',
1  recl=384,status='new')
   write(9,*) '. . .renaming raw files. . .'
c
c  read contents of existing images and write them to output
c
```

```
do 10 n=1,800                                ! n= number of record with recl=384.
  read(16,'(a384)',rec=n) byte
  write(17,'(a384)',rec=n) byte
10  continue
    close(17)
    close(16)
    goto 5
c
99  write(9,*) ' '
    write(9,*) number,' images renamed'
    pause 100
100 continue
c
    stop
    end
```