

Make SAS RENAME Function Work for You

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SAS RENAME Function:

- Can rename a member of a **SAS data library**, **external file**, or a **directory**
- **Syntax:** **RENAME** (*old-name*, *new-name*, *<type>*)
- **type** specifies the type of element to rename: '**ACCESS**' (an access descriptor that was created using SAS/ACCESS software) or '**CATALOG**' (a SAS catalog or catalog entry) or '**DATA**' (a SAS table) or '**VIEW**' (a SAS table view) or '**FILE**' (an external file or a directory)
- We developed a simple macro **%renameX** with **RENAME** function showing **two practical cases**

CASE 1: CONVERT SAS PROGRAM FILES (.SAS) INTO TEXT FILES (.TXT) FOR REGULATORY SUBMISSION

%renameX(dir=%str(C:\Users\pgm), in_ext=sas, out_ext=txt)

Name	Status	Date modified
t14010501dm.sas	✓	5/16/2021 1:51 PM
t14010902cm.sas	✓	5/11/2021 8:31 PM
t14020102bor.sas	✓	5/20/2021 11:41 AM
t1403010201aesum.sas	✓	5/1/2021 11:57 AM
t140301030101ae.sas	✓	5/1/2021 11:57 AM
t140301030301ae.sas	✓	5/2/2021 10:44 AM
t140301030501ae.sas	✓	5/1/2021 11:58 AM

Figure 1. SAS program files with .sas extension

Name	Status	Date modified
t14010501dm.txt	✓	5/16/2021 1:51 PM
t14010902cm.txt	✓	5/11/2021 8:31 PM
t14020102bor.txt	✓	5/20/2021 11:41 AM
t1403010201aesum.txt	✓	5/1/2021 11:57 AM
t140301030101ae.txt	✓	5/1/2021 11:57 AM
t140301030301ae.txt	✓	5/2/2021 10:44 AM
t140301030501ae.txt	✓	5/1/2021 11:58 AM

Figure 2. SAS program files with .txt extension for regulatory submission

CASE 2: CHANGE ATTRIBUTES OF PDF FILES

%renameX(dir=%str(C:\Users\folder), in_ext=PDF, out_ext=pdf)

Name	Date modified	Size	Name	Date modified	Size
T_14_1_2_1.PDF	5/8/2020 5:03 PM	190 K	t_14_1_2_1.pdf	5/8/2020 5:03 PM	190 KB
T_14_1_2_2.PDF	11/25/2020 1:52 PM	173 K	t_14_1_2_2.pdf	11/25/2020 1:52 PM	173 KB
T_14_1_5_1.PDF	5/15/2020 1:14 PM	189 K	t_14_1_5_1.pdf	5/15/2020 1:14 PM	189 KB
T_14_1_5_2.PDF	7/21/2020 3:45 PM	192 K	t_14_1_5_2.pdf	7/21/2020 3:45 PM	192 KB
T_14_1_7_1.PDF	7/13/2020 11:13 AM	178 K	t_14_1_7_1.pdf	7/13/2020 11:13 AM	178 KB
T_14_1_9_1.PDF	7/21/2020 2:55 PM	179 K	t_14_1_9_1.pdf	7/21/2020 2:55 PM	179 KB
T_14_2_1_1.PDF	7/13/2020 10:04 PM	183 K	t_14_2_1_1.pdf	7/13/2020 10:04 PM	183 KB

Figure 3. PDF files with capitalized file names and extensions

Figure 4. PDF files with lowercase file names and extensions

```
%macro renameX( dir = /* directory of input and output files */
, in_ext = /* extension of input files */
, out_ext = /* extension of output files */);

options mprint mlogic symbolgen;
%local fileref rc file_id memcnt file_name i;

/*****
filename --- assign/deassign a fileref to an external file, directory or an output device;
list all files within a folder that is passed to the macro including any sub-folder
*****/
%let rc=%sysfunc(filename(fileref, &dir));

/**** DOPEN - opens a directory and returns a directory identifier value ****/
%let file_id=%sysfunc(dopen(&fileref));

%if &file_id eq 0 %then
%do;
%put Folder &dir cannot be opened or does not exist;
%return; /**** stop this iteration ****/
%end;
```

```
**** DNUM - returns the number of members in a directory ****/
%do i = 1 %to %sysfunc(dnum(&file_id));
/**** DREAD - returns the name of a directory member ****/
%let file_name=%qsysfunc(dread(&file_id, &i));
/**** get the name of a file WITHOUT the file extension ****/
%let file_name_noext=%qscan(&file_name, 1, .);

%if %qupcase(%qscan(&file_name, -1, .)) = %upcase(&in_ext) %then
%put &dir/&file_name;
%end;

data _null_;
/***** RENAME - rename a file or a directory *****/
rc=&i=rename("&dir/&file_name_noext.&in_ext", "%lowcase(&dir/&file_name_noext.&out_ext)", "file");
run;

%end;

/**** DCLOSE - close a directory that was opened by the DOPEN function ****/
%let rc=%sysfunc(dclose(&file_id));
%let rc=%sysfunc(filename(fileref));
%mend renameX;
```