

How to perform more complicated search and replace-style renaming in a batch file

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Last time, we looked at [how copying and renaming with wildcards worked in MS-DOS](#), and how it doesn't work well if you are trying to perform search-and-replace operations where the strings have different lengths.

For example, if you have a list of files, say `fred001.txt` through `fred999.txt` and you want to rename them to `wilma001.txt` through `wilma999.txt`, the obvious command

```
ren fred*.txt wilma*.txt
```

will not produce the desired results because the `a` in `wilma` overwrites the first character that was matched by the wildcard in the source pattern, since `fred` is only four characters long.

You can still get what you want; you just won't be able to use the wildcard algorithm to do it.

```
setlocal enabledelayedexpansion
for %%i in (fred*.txt) do set "_=%%i" & ren "%%i" "!_:fred=wilma!"
```

We write a little batch file to perform the bulk rename operation.

The main loop is driven by the `FOR` command, which we ask to enumerate all the files that match the pattern `fred*.txt`. For each such file, we set the variable `_` to the file name. I like to use `_` as a scratch variable name in batch files because it's unlikely to collide with a name that means something to any particular program.¹

We then perform a non-wildcard `ren` command. The source file name is the file name which the `FOR` command gave us. The destination file name is the result of a search-replace operation with the `_` variable, where we ask to search for `fred` and change it to `wilma`.

This is a two-liner instead of a one-liner because we need to enable delayed expansion so that we can delay the search-replace operation until after the `_` variable is set.

If I need to do some sort of fancy renaming, I don't do any of this. I'll do a `dir /b` and dump the list of file names into a file. Then I'll edit that file and use the editor's fancy search-replace features to convert it into a list of `REN` commands. I'll look over the results to verify that they are doing what I want, and possibly perform some editing to deal with special cases like "Don't rename `fred314.txt`; that one stays unchanged." Once I'm satisfied, I save the results as a batch file and run it.

If the editing is particularly complicated, I'll write a one-off program to generate the batch file. I prefer generating a batch file to having the one-off program perform the renames directly, because that lets me preview the operation. You don't want to mess it up.

Bonus chatter: The reimagined Windows PowerToys includes an interactive bulk renaming tool called PowerRename.

¹ Sometimes people new to batch programming will have need for a temporary variable to hold a path, and they call it `PATH`. This tends to result in a lot of head-scratching, since they are unwittingly modifying the executable search path.

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