Windows Batch Scripting: Loops

Looping through items in a collection is a frequent task for scripts. It could be looping through files in a directory, or reading a text file one line at a time.

Old School with GOTO

The old-school way of looping on early versions of DOS was to use labels and GOTO statements. This isn’t used much anymore, though it’s useful for looping through command line arguments.

```
:args
SET arg=%~1
ECHO %arg%
SHIFT
GOTO :args
```

New School with FOR

The modern way to loop through files or text uses the `FOR` command. In my opinion, `FOR` is the single most powerful command in DOS, and one of the least used.

GOTCHA: The `FOR` command uses a special variable syntax of `%` followed by a single letter, like `%I`. This syntax is slightly different when `FOR` is used in a batch file, as it needs an extra percent symbol, or `%%I`. This is a very common source of errors when writing scripts. Should your for loop exit with invalid syntax, be sure to check that you have the `%%` style variables.

Looping Through Files

```
FOR %I IN (%USERPROFILE%\*) DO @ECHO %I
```

Looping Through Directories

```
FOR /D %I IN (%USERPROFILE%\*) DO @ECHO %I
```

Recursively loop through files in all subfolders of the %TEMP% folder

```
FOR /R "%TEMP%" %I IN (*) DO @ECHO %I
```

Recursively loop through all subfolders in the %TEMP% folder

```
FOR /R "%TEMP%" /D %I IN (*) DO @ECHO %I
```

Variable Substitution for Filenames