

Notes for Gnarl - Elihu Ihms

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Gnarl is an application that can systematically perform a specified operation (such as running a script) or even multiple operations (such as terminal commands) on a set of files. This is very useful when the same actions need to be applied to a great number of files, or when data from a number of files needs to be combined.

Usage:

```
gnarl -dir <directory> -ext <extension> (-op "<operation>"|-opfile <file>) -start  
<integer> -log <log file>
```

Upon execution, gnarl will compile a list of files within the specified **-dir** directory matching the given **-ext** extension. If **-ext** is not specified, Gnarl will match all readable files. Alternatively, a newline-delimited list of files may be piped to Gnarl, e.g. via **ls -l**.

Gnarl will then execute the specified operation on each file. Alternatively, if an operation file has been specified via **-opfile**, Gnarl will execute each line found within the file (in order) for each file. Operations can be constructed with the following wild-card characters, that will be appropriately filled in for each file:

%c will be replaced with Gnarl's internal counter (start point can be set with the **-start** option, otherwise will be 0 for the first matching file)

%fp will be replaced with the full file path, relative to the directory specified with **-dir**.

%f will be replaced with the file's full name (name + extension).

%fn is the file's "base name", the file's full name minus extension (e.g. when operating upon "myfile.txt" **%fn** = "myfile")

%fe is the opposite of **%fn**, as it is only the file's extension (eg. "txt")

Gnarl will keep a detailed log of each file operated upon, and the operations performed. This can be very useful for debugging purposes. If no log file is specified, a file name "gnarl_log.txt" will be created in the directory specified by **-dir**.

Examples:

Example directory structure:

```
/home/stuff/  
/home/stuff/file1.txt
```

```
/home/stuff/file2.txt  
/home/stuff/file3.txt  
/home/stuff/myfile.rtf
```

If we wanted to create a set of files, each with only the first five lines of each .txt file in **-dir**, Gnarl would be run with the following options:

```
gnarl -dir ~/stuff/ -ext txt -op "head -n 5 %f > %fn_%c.txt" -start 1  
or  
ls -l ~/stuff/*.txt | \  
gnarl -dir "~/stuff/" -op "head -n 5 %f > %fn_%c.txt" -start 1
```

Result: (new files created)

```
file1_1.txt  
file2_2.txt  
file3_3.txt
```

If, however, we wanted to combine all the .txt files in a given directory into one large txt file, the example is even more straightforward:

```
gnarl -dir /home/stuff/ -ext txt -op "cat %f>>bigfile.txt"
```

Gnarl can also read in an operation file containing a list of commands to apply to each file, as in this example where only the first five lines of each file are placed into final, master file.

commands.ker:

```
head -n 5 %f > %f_temp.tmp  
cat "First five lines from %fp:\n"  
cat %f_temp.tmp>>master_file.txt  
rm %f_temp.tmp
```

```
gnarl -dir /home/stuff/ -ext txt -opfile commands.ker
```