

```
(kali㉿kali)-[/tmp]
$ nano watcher.sh
```

```
GNU nano 7.2 watcher.sh *
#!/bin/bash

### usage: ./script.sh <param1 = directory>

if test $# -ne 1
then
    echo "Usage: ./watcher.sh <param1 = directory>"
    exit
fi

directory=$1
declare -A hashes=()

# hashtable for file hashes

files=$(ls $directory)
for file in $files
do
    hashes[$file]=$(md5sum $file | cut -f1 -d' ')
done
```

```
(kali㉿kali)-[/tmp]
$ chmod u+x watcher.sh
```

```
(kali㉿kali)-[/tmp]
$ ls
ssh-j3CDHb9gwGCI
systemd-private-29ed3617135949b99c2c5b63fcfb1157-colord.service-BphxU0
systemd-private-29ed3617135949b99c2c5b63fcfb1157-haveged.service-p9Wqz2
systemd-private-29ed3617135949b99c2c5b63fcfb1157-ModemManager.service-GFRwre
systemd-private-29ed3617135949b99c2c5b63fcfb1157-polkit.service-rFfunC
systemd-private-29ed3617135949b99c2c5b63fcfb1157-systemd-logind.service-d0yfwq
systemd-private-29ed3617135949b99c2c5b63fcfb1157-upower.service-BCTf8x
watcher.sh
```

```
(kali㉿kali)-[/tmp]
$ nano poc
```

```
GNU nano 7.2 poc *
hiworld!
```

```
(kali㉿kali)-[/tmp]
$ mkdir poc_dir

(kali㉿kali)-[/tmp]
$ mv poc poc_dir

(kali㉿kali)-[/tmp]
$ ls poc_dir
poc
```

```
(kali㉿kali)-[/tmp]
$ nano poc_dir/p2
```

```
GNU nano 7.2 poc_dir/p2 *
hi!
```

```
(kali㉿kali)-[/tmp]
$ ls poc_dir
p2 poc
```

```
(kali㉿kali)-[/tmp]
$ ./watcher.sh poc_dir
md5sum: p2: No such file or directory
md5sum: poc: No such file or directory
```

```

GNU nano 7.2                                watcher.sh *
#!/bin/bash

### usage: ./script.sh <param1 = directory>

if test $# -ne 1
then
    echo "Usage: ./watcher.sh <param1 = directory>"
    exit
fi

directory=$1
declare -A hashes=()

# hashtable for file hashes

files=$(ls $directory)
for file in $files
do
    hashes[$file]=$(md5sum $directory/$file | cut -f1 -d' ')
done

```

```

(kali@kali)-[/tmp]
$ ./watcher.sh poc_dir

```

```

GNU nano 7.2                                watcher.sh *
if test $# -ne 1
then
    echo "Usage: ./watcher.sh <param1 = directory>"
    exit
fi

directory=$1
declare -A hashes=()

# hashtable for file hashes

files=$(ls $directory)
for file in $files
do
    hashes[$file]=$(md5sum $directory/$file | cut -f1 -d' ')
done

# preview file hashes

for i in "${!hashes[@]}"
do
    echo "$i : ${hashes[$i]}"
done

```

```
(kali㉿kali)-[/tmp]
$ ./watcher.sh poc_dir
p2 : 679cbee9a4b608d3535c1c146efda1e8
poc : 656537254dfa6a3f06e49c10ecaa4f36
```

```
(kali㉿kali)-[/tmp]
$ ls poc_dir
p2 poc
```

```
GNU nano 7.2 watcher.sh *
do
    echo "$i : ${hashes[$i]}"
done
# watcher
while true
do
    for file in $files
    do
        h=$(md5sum $directory/$file | cut -f1 -d' ')
        if test $h ≠ ${hashes[$file]}
        then
            # generate alert!
            echo "hashes are different!"
            echo "file: $file oldhash: ${hashes[$file]} newhash: $h"
        fi
    done
    echo "sleeping for 5 seconds ..."
    sleep 5
done
```

```
(kali㉿kali)-[/tmp]
$ ./watcher.sh poc_dir
p2 : 679cbee9a4b608d3535c1c146efda1e8
poc : 656537254dfa6a3f06e49c10ecaa4f36
sleeping for 5 seconds ...
sleeping for 5 seconds ...
```



```
kali@kali: /tmp x kali@kali: /tmp/poc_dir x
(kali@kali)-[/tmp]
$ ls
poc_dir
ssh-j3CDHb9gwGCI
systemd-private-29ed3617135949b99c2c5b63fcfb1157-colord.service-BphxU0
systemd-private-29ed3617135949b99c2c5b63fcfb1157-haveged.service-p9Wqz2
systemd-private-29ed3617135949b99c2c5b63fcfb1157-ModemManager.service-GFRwre
systemd-private-29ed3617135949b99c2c5b63fcfb1157-polkit.service-rFfunC
systemd-private-29ed3617135949b99c2c5b63fcfb1157-systemd-logind.service-d0yfwq
systemd-private-29ed3617135949b99c2c5b63fcfb1157-upower.service-BCTf8x
watcher.sh

(kali@kali)-[/tmp]
$ cd poc_dir

(kali@kali)-[/tmp/poc_dir]
$ ls
p2 poc

(kali@kali)-[/tmp/poc_dir]
$ nano p2
```

```
kali@kali: /tmp x kali@kali: /tmp/poc_dir x
GNU nano 7.2 p2 *
hi!2
```

```
(kali㉿kali)-[/tmp]
$ ./watcher.sh poc_dir
p2 : 679cbee9a4b608d3535c1c146efda1e8
poc : 656537254dfa6a3f06e49c10ecaa4f36
sleeping for 5 seconds ...
sleeping for 5 seconds ...
sleeping for 5 seconds ...
sleeping for 5 seconds ...
hashes are different!
file: p2 oldhash: 679cbee9a4b608d3535c1c146efda1e8 newhash: 77fca7be9fe4dbab8c0ffd5
04f7ed0b2
sleeping for 5 seconds ...
hashes are different!
file: p2 oldhash: 679cbee9a4b608d3535c1c146efda1e8 newhash: 77fca7be9fe4dbab8c0ffd5
04f7ed0b2
sleeping for 5 seconds ...
hashes are different!
file: p2 oldhash: 679cbee9a4b608d3535c1c146efda1e8 newhash: 77fca7be9fe4dbab8c0ffd5
04f7ed0b2
sleeping for 5 seconds ...
```

```
kali@kali: /tmp x  kali@kali: /tmp/poc_dir x
GNU nano 7.2 p2 *
hi!
```

```
file: p2 oldhash: 679cbee9a4b608d3535c1c146efda1e8 newhash: 77fca7be9fe4dbab8c0ffd5
04f7ed0b2
sleeping for 5 seconds ...
sleeping for 5 seconds ...
sleeping for 5 seconds ...
sleeping for 5 seconds ...
sleeping for 5 seconds ...
sleeping for 5 seconds ...
sleeping for 5 seconds ...
sleeping for 5 seconds ...
sleeping for 5 seconds ...
^C
```

```
(kali㉿kali)-[/tmp]
$ nano poc_dir/p5old
```

```
GNU nano 7.2 poc_dir/p5old *
hi!
```

```
(kali㉿kali)-[/tmp]
```

```
$ ls poc_dir
```

```
p2  p5old  poc
```

```
(kali㉿kali)-[/tmp]
```

```
$ ./watcher.sh poc_dir
```

```
p2 : 679cbee9a4b608d3535c1c146efda1e8
```

```
poc : 656537254dfa6a3f06e49c10ecaa4f36
```

```
p5old : 764efa883dda1e11db47671c4a3bbd9e
```

```
sleeping for 5 seconds ...
```

```
sleeping for 5 seconds ...
```