

File And Folder Checks

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File And Folder Checks

File and Folder checks can help identify the following:

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The sections below provide examples of how to perform these checks using different methods.

File Count

These checks are for how many files exist in a folder.

Nagios Plugins

Nagios Plugins does not come bundled with a file count plugin however Nagios XI comes with the `folder_watch.pl` plugin (part of the Folder Watch configuration wizard).

In these examples the file pattern to check is a regular expression `[\^0]` which means "one or more non-null characters".

Warning: If more that 500 files are found

Critical: If more that 1000 files are found

Command:

```
./folder_watch.pl -f -T 'files' -D /usr/local/nagios/var/spool/perfdata/ -F '[^0] +' -w 500 -c 1000
```

Output:

```
OK - 5 [^0] files found | '[^0]'=5;500;1000;;;
```

By default the plugin will only check files in that directory. If you wanted to recursively count the files in all sub folders you can use the `-r` argument.

Command:

```
./folder_watch.pl -r -f -T 'files' -D /usr/local/nagios/var/spool/ -F '[^0] +' -w 500 -c 1000
```

Output:

```
OK - 51 [^0] files found | '[^0]'=51;500;1000;;;
```

NCPA

NCPA does not include file or folder module.

NSClient++ via check_nt

NSClient++ vi check_nt does not include a file or folder module.

NSClient++ via check_nrpe

NSClient++ includes a check_files module.

Warning: If more that 500 files are found

Critical: If more that 1000 files are found

Command:

```
./check_nrpe -H 10.25.14.2 -c check_files -a path='C:\\Temp' pattern=*. * 'warning=count>500' 'critical=count>1000' top-syntax='${sta
```

Output:

```
OK: All 7 files are ok|'count'=7;500;1000
```

By default the check_files module will recursively count the files in all sub folders. You can use the `max-depth` argument to define how deep it should look.

Command:

```
./check_nrpe -H 10.25.14.2 -c check_files -a path='C:\\Temp' pattern='*.*' 'warning=count>500' 'critical=count>1000' top-syntax='${sta
```

Output:

```
OK: All 6 files are ok|'count'=6;500;1000
```

WMI

Check WMI Plus includes a checkfoldersize module. The module does report how many files are found however it does not allow you to define thresholds on the amount of files found. Her

Command:

```
./check_wmi_plus.pl -H 10.25.14.3 -u wmiagent -p Str0ngP@ssw0rd -m checkfoldersize -a C:/Temp
```

Output:

```
OK - Folder C:/Temp/ is 33.194KB. Found 5 files(s). (List is on next line)|'C:/Temp/ Size'=33991bytes; 'File Count'=5;
```

SNMP

You will need to download a third party plugin that provides this functionality, please check out the [Nagios Exchange](#).

File Size

These checks are for the size of files.

Nagios Plugins

Nagios Plugins comes with the `check_file_age` plugin which allows you to check the size of a file. However the plugin also checks the age of the file, so you need to define these thresho

Critical: At least 100MB in size (needs to be expressed as 100000000)

Command:

```
./check_file_age -w 0 -c 0 -W 100000000 -C 100000000 -f /var/log/cron
```

Output:

```
FILE_AGE CRITICAL: /var/log/cron is 187 seconds old and 14418 bytes | age=187s;0;0 size=14418B;100000000;100000000;0
```

If you wanted to alert when the size was larger than a specific size then you could use the negate plugin to invert the returned result from the plugin (hence making CRITICAL an OK state).

Critical: No larger than 100MB in size (needs to be expressed as 100000000)

Command:

```
./negate -s ./check_file_age -w 0 -c 0 -W 100000000 -C 100000000 -f /var/log/cron
```

Output:

```
FILE_AGE OK: /var/log/cron is 330 seconds old and 14418 bytes | age=330s;0;0 size=14418B;100000000;100000000;0
```

Alternatively Nagios XI comes bundled with a `folder_watch.pl` plugin (part of the Folder Watch configuration wizard).

In these examples the file pattern to check is a regular expression `[\^0]` which means "one or more non-null characters".

Critical: Larger than 100MB (100000000 bytes)

Command:

```
./folder_watch.pl -f -T 'files' -D /var/log/ -F '[\^0]' -s 100000000,100000000
```

Output:

```
OK - Largest size file is 14645064 bytes, 47 [\^0] files found | '[\^0]'=47 size_largest=14645064B;100000000 size_smallest=0B;;;
```

NCPA

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NSClient++ includes a check_files module.

Critical: Larger than 100MB

Command:

```
./check_nrpe -H 10.25.11.3 -c check_files -a path='E:\\ServerFolders\\NoBackup\\Junk' pattern=*. * 'filter=size gt 100M' 'warn= count
```

Output:

```
CRITICAL: 4 files found Setup.exe, IMG_3535.MOV, IMG_3540.MOV, backup.rar|'count'=4;0;0
```

WMI

Check WMI Plus includes a checkfilesize and checkfoldersize module.

checkfilesize

The checkfilesize lets you check the size of a specific file.

Critical: Larger than 100MB

Command:

```
./check_wmi_plus.pl -H 10.25.14.3 -u wmiagent -p Str0ngP@ssw0rd -m checkfilesize -a C:/pagefile.sys -w 100m -c 100m
```

Output:

```
CRITICAL - [Triggered by FileSize>100m] - File C:/pagefile.sys is 1GB. Found 1 instance(s).|'C:/pagefile.sys Size'=1073741824bytes;1
```

checkfoldersize

The checkfoldersize lets you check the total size of a specific folder.

Critical: Larger than 100MB

Command:

```
/check_wmi_plus.pl -H 10.25.14.3 -u wmiagent -p Str0ngP@ssw0rd -m checkfoldersize -a C:/Temp -w 100m -c 100m
```

Output:

```
OK - Folder C:/Temp/ is 33.194KB. Found 5 files(s). (List is on next line)|'C:/Temp/ Size'=33991bytes;104857600;104857600; 'File Cou
```

SNMP

You will need to download a third party plugin that provides this functionality, please check out the [Nagios Exchange](#).

File Or Folder Exists

These checks are for making sure that a specific file or folder exists.

Nagios Plugins

Nagios Plugins comes with the check_file_age plugin, this will return a critical state if the file does not exist.

Command:

```
./check_file_age -f /var/log/cron
```

Output:

```
FILE_AGE OK: /var/log/cron is 163 seconds old and 18974 bytes | age=163s;240;600 size=18974B;0;0;0
```

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NSClient++ via check_nrpe

NSClient++ includes a check_files module.

Command:

```
./check_nrpe -H 10.25.11.3 -c check_files -a path='C:\\pagefile.sys' 'warn= count < 1' 'crit= count < 1' top-syntax='${status}: ${co
```

Output:

```
OK: 1 files found pagefile.sys|'count'=1;1;1
```

WMI

Check WMI Plus includes a checkfilesize module, this will return a critical state if the file does not exist.

Command:

```
./check_wmi_plus.pl -H 10.25.14.3 -u wmiagent -p Str0ngP@ssw0rd -m checkfilesize -a C:/pagefile.sys
```

Output:

```
OK - File C:/pagefile.sys is 1GB. Found 1 instance(s).|'C:/pagefile.sys Size'=1073741824bytes; 'File Count'=1;
```

SNMP

You will need to download a third party plugin that provides this functionality, please check out the [Nagios Exchange](#).

File Modified

These checks allow you to check when a file was last modified.

Nagios Plugins

Nagios Plugins comes with the `check_file_age` plugin, the thresholds are checking to make sure a file is not older than an amount of seconds.

Warning: Not older than 300 seconds

Critical: Not older than 600 seconds

Command:

```
./check_file_age -w 300 -c 600 -f /var/log/cron
```

Output:

```
FILE_AGE CRITICAL: /var/log/cron is 1009 seconds old and 14418 bytes | age=1009s;300;600 size=14418B;0;0;0
```

NCPA

NCPA does not include file or folder module.

NSClient++ via check_nt

NSClient++ vi check_nt does not include a file or folder module.

NSClient++ via check_nrpe

NSClient++ includes a check_files module. The module has many options and filters, here are some examples:

Make Sure Files Exists That Were Modified In The Last Two Hours

Check a folder to make sure files exist that were modified in the past two hours. Generate a critical alert if no files matching this criteria are found.

Command:

```
./check_nrpe -H 10.25.11.3 -c check_files -a path='E:\\ServerFolders\\NoBackup\\Junk' pattern=*. * 'filter= written > -2h' 'crit= cou
```

Output:

```
CRITICAL: No files found|'count'=0;0;1
```

Files Older Than

Check a folder to determine if any files exist that are older than two hours. Generate a critical alert if at least 1 file matches this criteria.

Command:

```
./check_nrpe -H 10.25.11.3 -c check_files -a path='E:\\ServerFolders\\NoBackup\\Junk' pattern=*. * 'filter= written < -2h' 'crit= cou
```

Output:

```
CRITICAL: 6065 files found|'count'=6065;0;0
```

WMI

Check WMI Plus includes a checkfileage module, the following example checks a file to determine if it is older than the thresholds.

Warning: Older than 5 minutes

Critical: Older than 10 minutes

Command:

```
./check_wmi_plus.pl -H 10.25.14.3 -u wmiagent -p Str0ngP@ssw0rd -m checkfileage -a C:/Logs/server.log -w 5min -c 10min
```

Output:

```
CRITICAL - [Triggered by _FileAge>10min] - Age of File C:/Logs/server.log is 346 days 19:48:46 (499428min) or 8323.81hr(s).|'C:/Logs
```

SNMP

You will need to download a third party plugin that provides this functionality, please check out the [Nagios Exchange](#).

Advanced

Here is an example where a check was required to make sure a folder was being created each day, the folder name was a "date based" directory like 27112017. The solution was to monitor agents to your needs, all that is required is some creative thinking.

Credit goes to Nagios Forum users [tmcdonald](#) & [warnox](#).

NSClient++ via check_nrpe

Command:

```
./check_nrpe -H 10.25.11.3 -c check_files -a path="C:\\Logs" "max-depth=2" "filter=filename='`date +%d%m%Y`'" "critical=count<1" "em
```

Output:

```
OK: Folder 27112017 found|'count'=1;0;1
```

NSClient++ Notes

NSClient++ via check_nrpe

NSClient++ has the `path=` and `pattern=` arguments for the `check_files` module.

When using `path=` and `pattern=` together, this will consume more overhead to execute as it looks at all the files in the folder. This is more noticeable when your folder has 10,000+ files.

If you only wanted to watch a specific file, ditch `pattern=` and put the whole filename in `path=`

```
path='D:\\Important Stuff\\Important File.txt'
```

HOWEVER if there is a chance that the file doesn't exist sometimes, then define the filename in the `pattern=`

```
path='D:\\Important Stuff' pattern='Important File.txt'
```

Final Thoughts

For any support related questions please visit the [Nagios Support Forums](#) at:

Posted by: **tlea** - Sun, Nov 26, 2017 at 5:38 PM. This article has been viewed 37977 times.

Online URL: <https://support.nagios.com/kb/article/file-and-folder-checks-783.html>