

Nagios check_all_disks.py

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A universal disk space checker

Why is this needed?

Because adding a separate Nagios service monitor for every drive/filesystem on every server is tedious, and added drives and filesystems aren't auto-discovered. This method discovers new drives and filesystems instantly. It doesn't track utilization history in Nagios XI. If you have a critical drive or filesystem, you can still use the regular disk space checks. It can support any system that has NCPA 2.4 installed, Windows, Linux, AIX, etc.

It takes advantage of the fact that NCPA will return a list of all drives and their attributes in a JSON dump. This runs as an active check on the Nagios server instead of passive.

The script has a list of recognized filesystem types. It might be required to update the script if an unknown filesystem type is seen in your environment:

```
valid_fstypes = ["NTFS", "FAT", "FAT32", "jfs", "jfs2", "btrfs",  
"ext2", "ext3", "ext4", "xfs"]
```

Help from the command line with key options **highlighted**.

```
$ /usr/local/nagios/libexec/check_all_disks.py -h  
Usage: check_all_disks.py [options]
```

Options:

```
-h, --help                show this help message and exit  
-H HOSTNAME, --hostname=HOSTNAME  
                           The hostname to be connected to.  
-P PORT, --port=PORT      Port to use to connect to the client.  
-w WARNING, --warning=WARNING  
                           Warning value to be passed for the check.  
-c CRITICAL, --critical=CRITICAL  
                           Critical value to be passed for the check.  
-t TOKEN, --token=TOKEN  
                           The token for connecting.  
-a ARGUMENTS, --arguments=ARGUMENTS  
                           Arguments for the plugin to be run. Not necessary  
                           unless you're running a custom plugin. Given in the  
                           same as you would call from the command line.  
-T TIMEOUT, --timeout=TIMEOUT  
                           Enforced timeout, will terminate plugins after this  
                           amount of seconds. [60]  
-v, --verbose             Print more verbose error messages.  
-x EXCLUDE, --exclude=EXCLUDE  
                           Comma separated list of drives to exclude from the  
                           check. Use separator | instead of \ or /. Example -x  
                           'T:|,E:|' to exclude Windows drives T:\ and E:\  
                           Example -x '|mkcd|cd_images' to exclude Unix
```

-D, --debug	/mkcd/cd_images Print LOTS of error messages. Used mostly for debugging.
-V, --version	Print version number of plugin.
-s, --secure	Require successful certificate verification. Does not work on Python < 2.7.9.

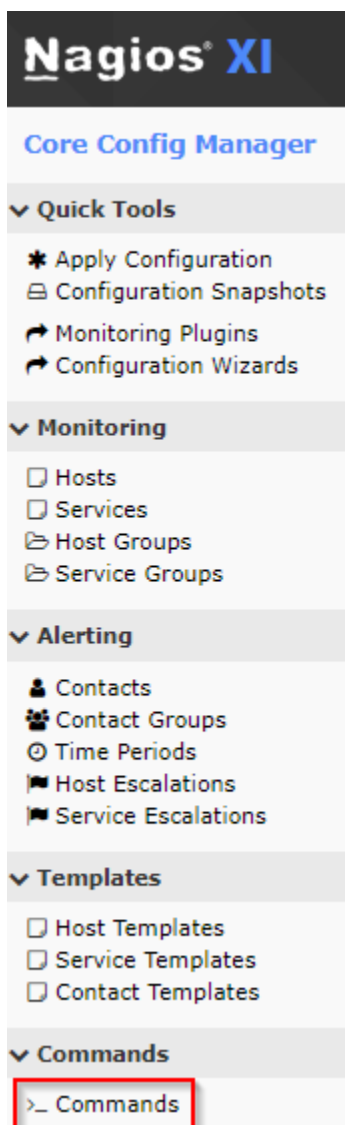
Configure in Nagios XI

Put module in `/usr/local/nagios/libexec/check_all_disks.py`, set permissions and ownership.

Login web interface as an admin.

Add a command:

Configure->Core Config Manager



Core Config Manager

Quick Tools

- Apply Configuration
- Configuration Snapshots
- Monitoring Plugins

Commands

[+ Add New](#) *Displayin*

<input type="checkbox"/>	↑ Command Name	↓ Command Line
<input type="checkbox"/>	check_all_disks	\$USER1\$/check_all_disks.py -H \$HOSTADDRESS\$ -t \$_HOSTNCPA_TOKEN\$ -P \$_HOSTNCPA_PORT\$ -w \$ARG1\$ -c \$ARG2\$ -x \$ARG3\$

Create a service using the command. This one is tailored for AIX systems.

Service Management

- Common Settings
- Check Settings**
- Alert Settings
- Misc Settings

Config Name *

Description *

Display name

- Manage Hosts **1**
- Manage Templates **0**
- Manage Host Groups **0**
- Manage Service Groups **0**

Check command

Command view

```
$USER1$/check_all_disks.py -H $HOSTADDRESS$ -t 2LN54dZGQ07Q -w $ARG1$ -c $ARG2$ -x $ARG3$
```

\$ARG1\$

\$ARG2\$

\$ARG3\$

\$ARG4\$

\$ARG5\$

Service Management

- Common Settings
- Check Settings**
- Alert Settings

Initial state

- Warning
- Critical
- Ok**
- Unknown

Check interval

 min

Retry interval

 min

Max check attempts *

 attempts

Active checks enabled

- On**
- Off
- Skip
- Null

Passive checks enabled

- On
- Off**
- Skip
- Null

Check period *

And the service status shows OK:

All drive space		Ok	N/A	1/3	2022-04-02 08:52:52	OK: success
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