

PNP4Nagios

????? <https://www.pnp4nagios.org/>

NOTE: ????????? Nagios

????

```
# [ ] [ ] [ ] [ ]  
yum install gcc perl-Time-HiRes rrdtool-perl make  
  
tar xzf pnp4nagios-0.6.21.tar.gz  
cd pnp4nagios-0.6.21  
./configure
```

?? Nagios ?????????????? nagios?????????

```
./configure --with-nagios-user=icinga --with-nagios-group=icinga
```

????????????? configure ???

“ *** Configuration summary for pnp4nagios-0.6.21 03-24-2013 ***

General Options:

Nagios user/group: nagios nagios
Install directory: /usr/local/pnp4nagios
HTML Dir: /usr/local/pnp4nagios/share
Config Dir: /usr/local/pnp4nagios/etc
Location of rrdtool binary: /usr/bin/rrdtool Version 1.3.8
RRDs Perl Modules: FOUND (Version 1.3008)
RRD Files stored in: /usr/local/pnp4nagios/var/perfdata
process_perfdata.pl Logfile: /usr/local/pnp4nagios/var/perfdata.log
Perfdata files (NPCD) stored in: /usr/local/pnp4nagios/var/spool

Web Interface Options:

HTML URL: `http://localhost/pnp4nagios`

Apache Config File: `/etc/httpd/conf.d/pnp4nagios.conf`

Review the options above for accuracy. If they look okay, type 'make all' to compile.

????

```
make all
make fullinstall
```

?? PNP4Nagios

?? `/etc/httpd/conf.d/pnp4nagios.conf`

```
...
AuthUserFile /etc/nagios/htpasswd.users <-- [REDACTED] Nagio [REDACTED]
...
```

????? `http://xxx.xxx.xxx.xxx/pnp4nagios/`

????????????????????

```
mv /usr/local/pnp4nagios/share/install.php /usr/local/pnp4nagios/share/install.php.xxx
```

?? Nagios

?? `/etc/nagios/nagios.cfg`

```
process_performance_data=1

service_perfddata_command=process-service-perfddata
host_perfddata_command=process-host-perfddata
```

?? `/etc/nagios/objects/commands.cfg`

```
define command {
    command_name    process-host-perfdata
    command_line    /usr/bin/perl /usr/local/pnp4nagios/libexec/process_perfdata.pl -d HO
    STPERFDATA
}
```

```
define command {
    command_name    process-service-perfdata
    command_line    /usr/bin/perl /usr/local/pnp4nagios/libexec/process_perfdata.pl
}
```

?? /etc/nagios/objects/templates.cfg

```
““ ? generic-host ? generic-service ? process_perf_data ?? 0?????? 1 ??????
host ? ??????????????
```

```
define host {
    name                generic-host
    ...
    process_perf_data 0
    ...
}

define service {
    name                generic-service
    ...
    process_perf_data 0
    ...
}
```

??? host ? service ??????

?? /etc/nagios/objects/MES-servers.cfg?? host ? service ?????? process_perf_data 1

??MES-server.cfg ????????

```

define host {
    use                generic-host
    host_name          ap1
    ...
    process_perf_data  1
    action_url         /pnp4nagios/index.php/graph?host=$HOSTNAME$&srv=_HOST_
    ...
}

define service {
    use                generic-service
    host_name          ap1
    service_description PING
    ...
    process_perf_data  1
    action_url         /pnp4nagios/index.php/graph?host=$HOSTNAME$&srv=$SERVICEDESC$
    ...
}

```

?????DB2 ??????????????

MES-server.cfg?

```

define service{
    use                generic-service
    host_name          bdb1
    service_description MMTBS01
    contact_groups     adm-alang
    notifications_enabled 0
    check_command       check_db2_tbs_usage!-d MMTBS01 -u istflr -p istflr
    max_check_attempts 1
    normal_check_interval 60
    process_perf_data  1
    action_url         /pnp4nagios/index.php/graph?host=$HOSTNAME$&srv=$SERVICEDESC$' class='tips'
    rel='/pnp4nagios/index.php/popup?host=$HOSTNAME$&srv=$SERVICEDESC$
}

```

commands.cfg?

```
# 'check_db2_tbs_usage' command definition
define command{
    command_name    check_db2_tbs_usage
    command_line    sudo -u db2inst ksh -c "~/bin/db2_check_tbs_usage.sh $ARG1$ "
}
}
```

~dn2inst/bin/db2_check_tbs_usage.sh?

```
#!/bin/ksh
#####
# Author: Felipe Alkain de Souza
#
# Script Name: db2_check_tbs_usage.sh
#
# Functionality: This script checks DB2 tablespace utilization
#
# Usage: ./db2_check_tbs_usage.sh -d <database_name> -t <tbs_name> -u <db_user> -p <db_pass>
#
# Requisite settings:
# - visudo
# #Defaults    requiretty <== comment out this line
# nagios ALL=(ALL)    NOPASSWD: ALL
#
# - Create DB2 catalog for the DBs that are monitored.
#
#
# Update:
# 2013/9/17    by A-Lang
#
#####

. $HOME/sql/lib/db2profile

### Nagios RCs Variables
STATE_OK=0
STATE_WARNING=1
STATE_CRITICAL=2
STATE_UNKNOWN=3

Usage() { echo "Usage: $0 [-d <databas_name>] [-t <tbs_name>] [-u <db_user>] [-p <db_pass>]"; }
```

```
ToUpper() {  
    echo $1 | tr "[:lower:]" "[:upper:]"  
}
```

```
GetOut(){  
    db2 terminate > /dev/null 2>&1  
    sleep 2  
    exit $1  
}
```

```
while getopts ":d:t:u:p:" o; do  
    case "$o" in  
        d)  
            d=$OPTARG  
            ;;  
        t)  
            t=$OPTARG  
            ;;  
        u)  
            u=$OPTARG  
            ;;  
        p)  
            p=$OPTARG  
            ;;  
        \?)  
            echo "Invalid option: -$OPTARG"  
            Usage  
            ;;  
        :)  
            echo "Option -$OPTARG requires an argument."  
            Usage  
            ;;  
    esac  
done  
  
if [ $OPTIND -ne 9 ]; then  
    echo "Invalid options entered."  
    Usage  
    exit $STATE_UNKNOWN
```

```
fi
```

```
DB_NAME=$(ToUpper $d)
```

```
DB_TBS=$(ToUpper $t)
```

```
DB_USER=$u
```

```
DB_PASS=$p
```

```
db2 terminate > /dev/null 2>&1
```

```
db2 connect to $DB_NAME user $DB_USER using $DB_PASS > /dev/null 2>&1
```

```
if [ $? -ne 0 ]
```

```
then
```

```
    echo "DB2 CRITICAL - The database $DB_NAME did not connect!"
```

```
    GetOut $STATE_CRITICAL
```

```
fi
```

```
TBS_USAGE=`db2 -x "select '      ' CONCAT (SUBSTR(CHAR(DECIMAL(USED_PAGES, 10, 2))/ \
```

```
DECIMAL(TOTAL_PAGES,10,2)*100),9,5)) CONCAT '%' as PERCENT_USED \
```

```
from table (snapshot_tbs_cfg('${DB_NAME}', 0)) as t \
```

```
where TABLESPACE_TYPE=0 and TABLESPACE_NAME='${DB_TBS}'" | sed -e 's/%//g' -e 's/ //g`
```

```
#echo $TBS_USAGE
```

```
if [ -z $TBS_USAGE -o $? -ne 0 ]
```

```
then
```

```
    echo "Unknown Tablespace $DB_TBS !"
```

```
    GetOut $STATE_UNKNOWN
```

```
fi
```

```
PERF_DATA="|'Disk Utilization'=${TBS_USAGE}%;90;95;"
```

```
if [ $TBS_USAGE -lt 90 ]; then
```

```
    echo "TABLESPACE OK - The database $DB_NAME is healthy now , the used disk space of the tablespace $DB_TBS is ${TBS_USAGE}% . $PERF_DATA"
```

```
    GetOut $STATE_OK
```

```
elif [ $TBS_USAGE -gt 90 -a $TBS_USAGE -lt 95 ]; then
```

```
    echo "TABLESPACE WARNING - The used disk space of the tablespace $DB_TBS is ${TBS_USAGE}%, crossing
```

```

the threshold. $PERF_DATA"
    GetOut $STATE_WARNING

else
    echo "TABLESPACE CRITICAL - The used disk space of the tablespace $DB_TBS is ${TBS_USAGE}%, crossing
the threshold. $PERF_DATA"
    GetOut $STATE_CRITICAL

fi

#db2 terminate
db2 terminate > /dev/null 2>&1
sleep 1

```

?? popup ??(optional)

? pnp4nagios ??????? status-header.ssi

```
cp <pnp4nagios [ ]>/contrib/ssi/status-header.ssi /usr/share/nagios/ssi
```

“ NOTE:

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/usr/share/nagios/ssi ?????? nagios ???????????

?? /etc/nagios/objects/MES-servers.cfg??? action_url

```

define host {
    use                generic-host
    host_name          ap1
    ...
    process_perf_data  1
    action_url          /pnp4nagios/index.php/graph?host=$HOSTNAME$&srv=_HOST_' class='tips'
    rel='/pnp4nagios/index.php/popup?host=$HOSTNAME$&srv=_HOST_
    ...
}

```



```
define service {
    use                generic-service
    host_name          ap1
    service_description PING
    ...
    process_perf_data  1
    action_url          /pnp4nagios/index.php/graph?host=$HOSTNAME$&srv=$SERVICEDESC$' class='tips'
    rel='/pnp4nagios/index.php/popup?host=$HOSTNAME$&srv=$SERVICEDESC$
    ...
}
```

Performance Data ???

Performance Data ??

```
label=value[UOM];[warning-range];[critical-range];[min];[max]
```

HTTP ??????

```
HTTP OK: HTTP/1.1 200 OK - 46869 bytes in 0.294 second response time | time=0.294561s;;;0
size=46869B;;;0
```

“ Tip: ????? | ????? Performance Data

Performance Data ????????????

- space separated list of label/value pairs
- label can contain any characters
- the single quotes for the label are optional. Required if spaces, = or ' are in the label
- label length is arbitrary, but ideally the first 19 characters are unique (due to a limitation in RRD). Be aware of a limitation in the amount of data that NRPE returns to Nagios
- to specify a quote character, use two single quotes
- warn, crit, min/ or max/ may be null (for example, if the threshold is not defined or min and max do not apply). Trailing unfilled semicolons can be dropped
- min and max are not required if UOM=%
- value, min and max in class [-0-9.]. Must all be the same UOM
- warn and crit are in the range format (see Section 2.5). Must be the same UOM
UOM (unit of measurement) is one of:
 - no unit specified - assume a number (int or float) of things (eg, users, processes, load averages)
 - s - seconds (also us, ms)

- % - percentage
- B - bytes (also KB, MB, TB, GB?)
- c - a continuous counter (such as bytes transmitted on an interface)

Revision #2

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