

Install and configure the Net-SNMP agent for Windows

- Version 0.2 (03/06/2008) : added a note about snmpd.conf file creation
- Version 0.1 (03/04/2008) : intial release

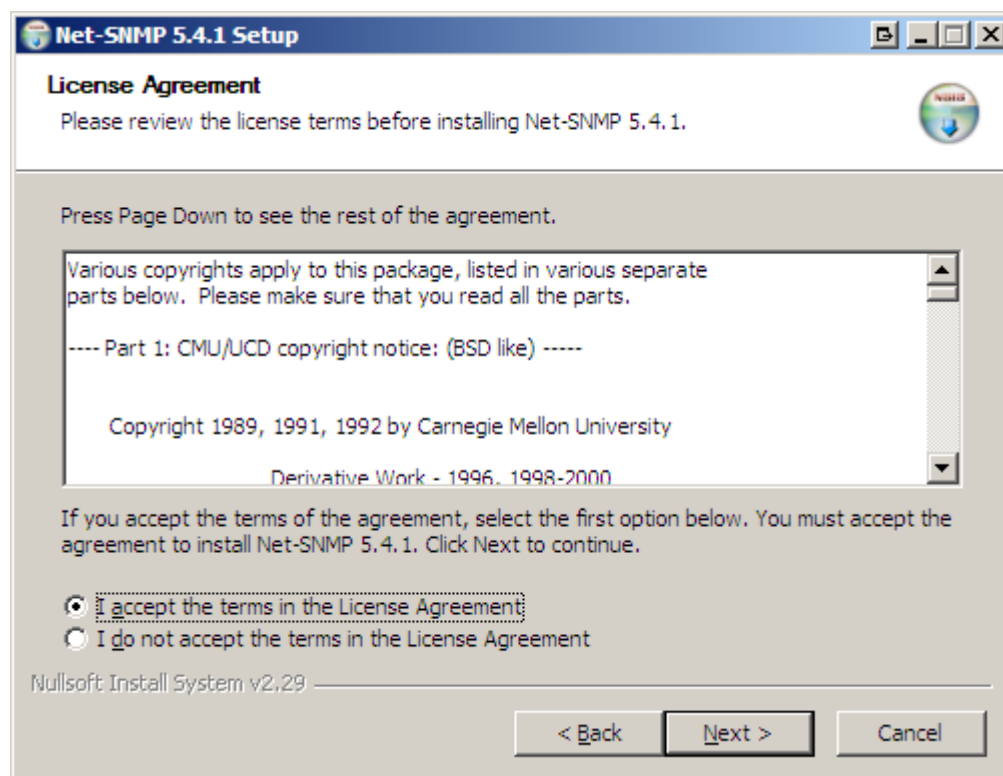
This HowTo will explain how to install and configure the [Net-SNMP](#) agent for Windows, as a "**subagent**" of the Microsoft SNMP agent, to **graph the output of custom scripts**.

Chapter I: Getting Net-SNMP binaries

Net-SNMP 5.4.1 for Windows can be downloaded [here](#).

Once the file is downloaded, you just have to run the installer :

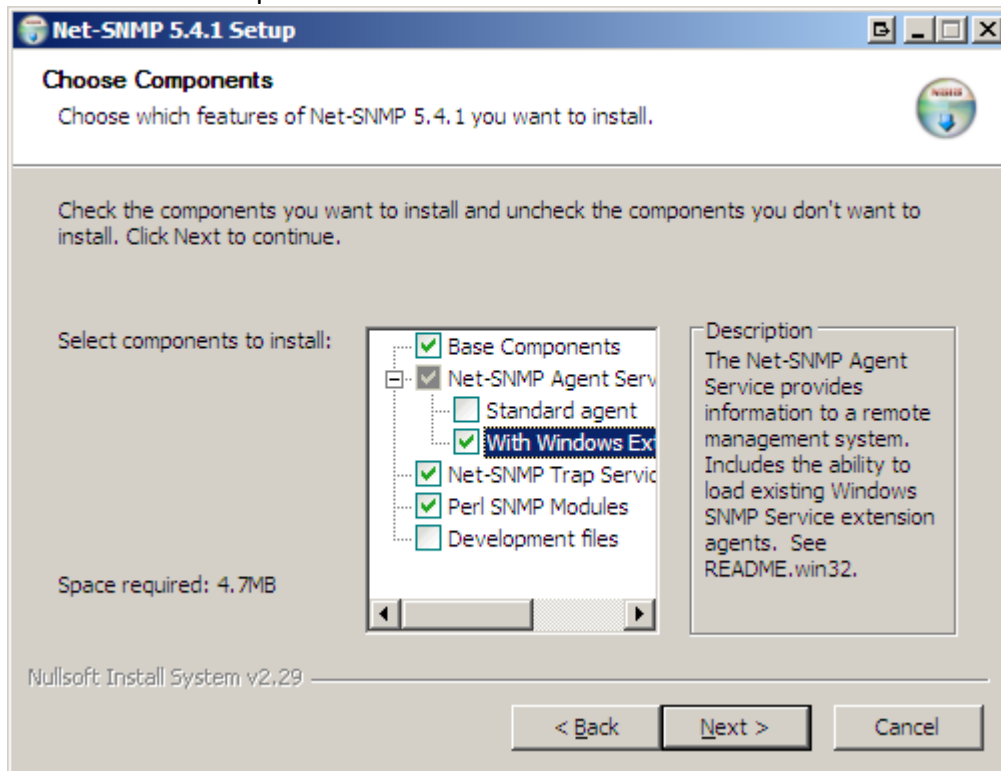
You then have to accept the license :



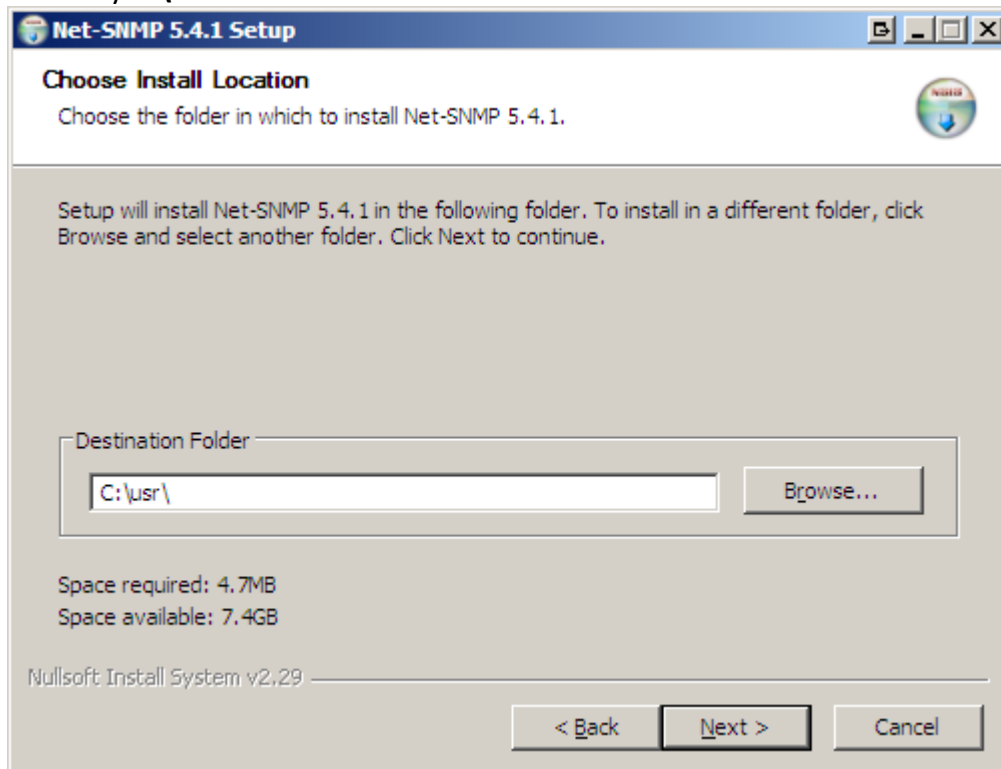
Next, you have to choose which type of agent you want to run :

- as a standard agent
- as a "subagent" of the Microsoft SNMP agent

Select the second option :

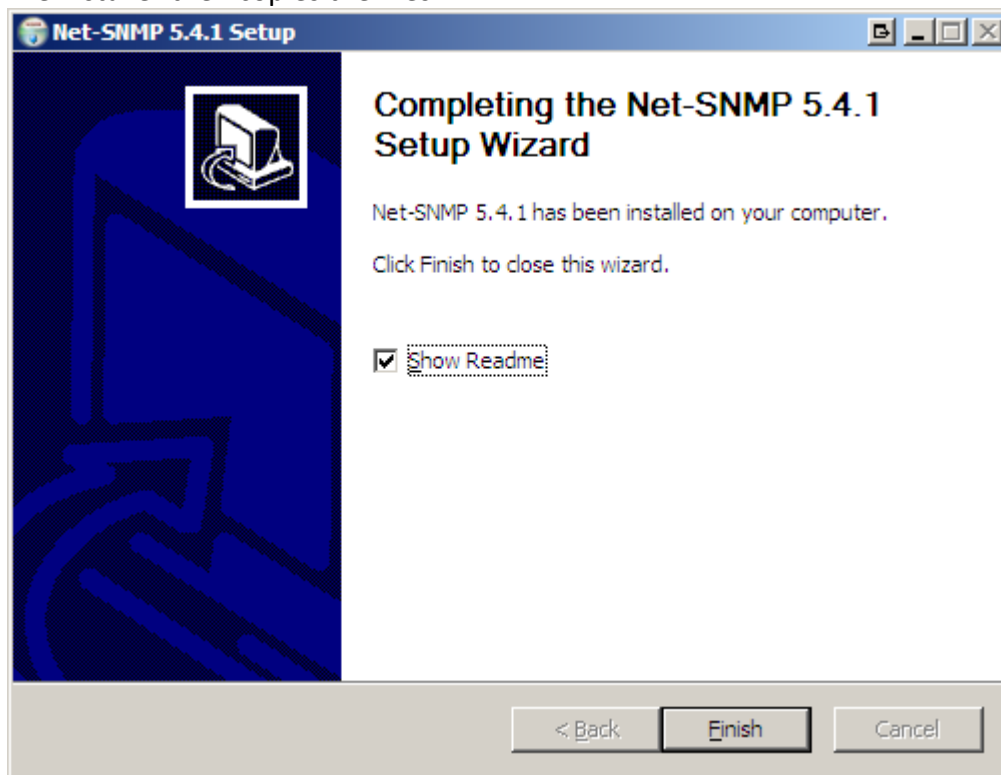


Next, choose an installation directory (C:\usr by default) : it is better to create a Directory **C:\Net-SNMP**

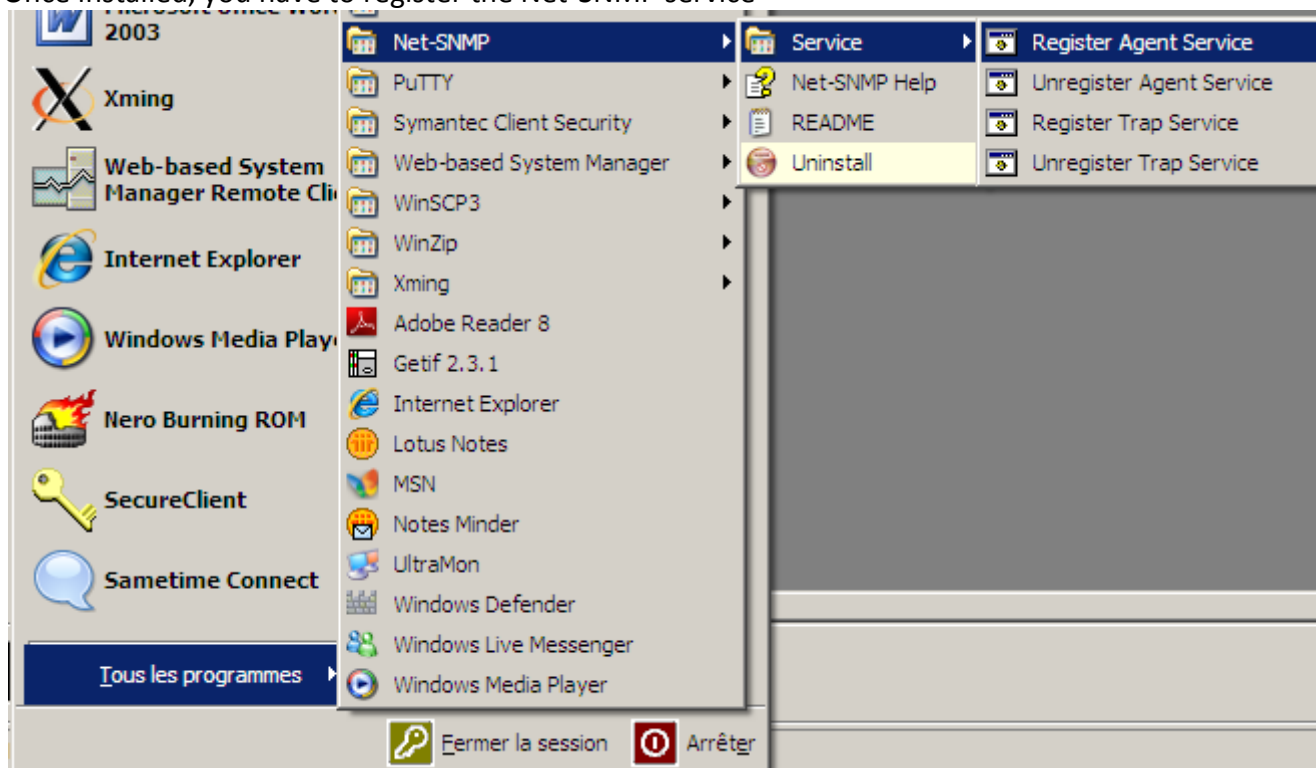


Next, select an existing or a new Start menu folder :

The installer then copies the files :



Once installed, you have to register the Net-SNMP service



Chapter II: Configuring the Net-SNMP agent

The Windows SNMP service must be installed, but the service must be disabled.

Depending on where you've installed Net-SNMP, the main configuration file (`snmpd.conf` OR `snmptrapd.conf`) will be located in <path>\etc\snmp (by default, C:\Net-SNMP\usr\etc\snmp).

The `snmpd.conf` OR `snmptrapd.conf` has to be created.
SOS!!!

Please note that you need to restart the "Net-SNMP Agent" service whenever you modify `snmpd.conf` !

The minimum configuration is this one :

Code:

```
rocommunity public
```

Start then the "Net-SNMP Agent" service, and query it :

Code:

```
C:\Net-SNMP \usr\bin>snmpwalk.exe -v 1 -c public localhost sysdesc
SNMPv2-MIB::sysDescr.0 = STRING: Hardware: x86 Family 6 Model 9 Stepping 5
AT/AT COMPATIBLE - Software: Windows 2000 Version 5.1 (Build 2600
Uniprocessor Free)
```

This OID got an answer from the Microsoft SNMP service, whereas

Code:

```
C:\Net-SNMP \usr\bin>snmpwalk.exe -v 1 -c public localhost versiontag
UCD-SNMP-MIB::versionTag.0 = STRING: 5.4.1
```

got an answer from the Net-SNMP agent.

At this point, you can use the "Windows XP/2000/2003" host template in Cacti, to graph CPU usage, disk drives usage, network bandwidth, etc.

Chapter III: Extending the Net-SNMP agent

A great functionality of Net-SNMP is that you can "extend" it.

Let's run the C:\temp\foo.cmd script :

Code:

```
C:\temp\foo.cmd
123
```

Now put this in **snmpd.conf** :

Code:

```
exec foo c:\temp\foo.cmd
```

The result of your script will be accessible under the *ucdavis.extTable.extEntry* tree :

- output of the script : *ucdavis.extTable.extEntry.extOutput*
- exit status : *ucdavis.extTable.extEntry.extResult*
- command : *ucdavis.extTable.extEntry.extCommand*

You can check the result with this SNMP query :

Code:

```
C:\temp>snmpwalk.exe -v 1 -c public localhost exttable
UCD-SNMP-MIB::extIndex.1 = INTEGER: 1
UCD-SNMP-MIB::extNames.1 = STRING: foo
UCD-SNMP-MIB::extCommand.1 = STRING: c:\temp\foo.cmd
UCD-SNMP-MIB::extResult.1 = INTEGER: 0
UCD-SNMP-MIB::extOutput.1 = STRING: 123
UCD-SNMP-MIB::extErrFix.1 = INTEGER: noError(0)
UCD-SNMP-MIB::extErrFixCmd.1 = STRING:
```

extOutput translates to .1.3.6.1.4.1.2021.8.1.101

As "foo" is our first *exec* directive, add ".1" at the end of the OID.

In Cacti, use the "SNMP - Generic OID Template" like this :

Voila ! Result of the C:\temp\foo.cmd script is now graphed in Cacti.

Chapter IV: Configure Net-SNMP agent for TUC

Copy [PowerNet-MIB.txt](#) to c:\Net-SNMP\usr\share\snmp\mibs\

Insert to C:\Net-SNMP\usr\etc\snmp\snmpd.conf OR snmptrapd.conf

```
traphandle PowerNet-MIB::gracefullShutdown c:\Net-
SNMP\usr\etc\shutdown.cmd
```

and the file will like this :

`disableAuthorization yes`

`# Generic SNMP Traps`

`traphandle SNMPv2-MIB::coldStart c:\Net-SNMP\usr\etc\foo.cmd cold`

`traphandle SNMPv2-MIB::warmStart c:\Net-SNMP\usr\etc\foo.cmd warm`

`traphandle IF-MIB::linkDown c:\Net-SNMP\usr\etc\foo.cmd down`

`traphandle IF-MIB::linkUp c:\Net-SNMP\usr\etc\foo.cmd up`

`# Enterprise specific traps`

`#Trap from the DATA CENTER`

`traphandle PowerNet-MIB::gracefullShutdown c:\Net-SNMP\usr\etc\shutdown.cmd`

there are two files that will execute **foo.cmd** and **shutdown.cmd**.

foo.cmd will execute when a Generic SNMP Trap will accoreded.

Shutdown.cmd will execute when a DATA CENTER SNMP trap accoreded.

Please note that you need to restart the "Net-SNMP Agent" service whenever you modify snmpd.conf !

Modify the `c:\Net-SNMP\usr\etc\shutdown.cmd`:

`echo %date%--%time%-Shutdown >> c:\net-snmp\usr\etc\hello.txt`

`c:\net-snmp\usr\etc\ShutDownSERVERS.bat`

in the file ShutDownSERVERS.bat you will find a example of shutdown procedure how to shutdown a server(windows or linux) from windows Server