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# **pymonitoringplugins Documentation**

***Release 1.3.0***

**Canux CHENG**

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pymonitoringplugins is a pure python package for [\[monitoring-plugins\]](#).

In this package you can use lots of protocols to get the monitoring data.

All you need to do is just focus on your monitoring business.

You don't need to pay attention on basic protocols connection and the basic functions about the monitoring tools.



# CHAPTER 1

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## Install

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Use pip:

```
$pip install pymonitoringplugins
```

Use source code:

```
$git clone https://github.com/crazy-canux/pymonitoringplugins.git
$cd pymonitoringplugins
$python setup.py install
```





## CHAPTER 2

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### Quick Start

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Import the protocol you want:

```
from pymonitoringplugins.http_requests import Http
from pymonitoringplugins.ftp_ftplib import Ftp
from pymonitoringplugins.ssh_paramiko import Ssh
from pymonitoringplugins.mssql_pymssql import Mssql
from pymonitoringplugins.mysql_pymysql import Mysql
from pymonitoringplugins.winrm_pywinrm import WinRM
from pymonitoringplugins.wmi_sh import Wmi
from pymonitoringplugins.wmi_subprocess import Wmi
...
```

Write your own business monitoring class:

```
class HttpSearch(Http):
    def __init__(self):
        super(HttpSearch, self).__init__()
        self.logger.debug("Init HttpSearch")

    def define_sub_options(self):
        super(HttpSearch, self).define_sub_options()
        self.hs_parser = self.subparsers.add_parser("...",
                                                    help='...',
                                                    description='...')

        self.hs_parser.add_argument('-s', '--search',
                                    default=None,
                                    required=False,
                                    help='Search pattern',
                                    dest='search')

    def httpsearch_handle(self):
        # Set the default status to ok.
        status = self.ok
        # Define your variables
```

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```
...

# Call the API to get the monitoring data.
# Check the API from python/ipython console.
# help(Http)
# dir(Http)
...

# Get the last status after check(Warning/Critical/Ok).
...

# Set the output.
self.shortoutput = "..."
self.longoutput.append(...)
self.perfdata.append(...)

# Exit and show output.
self.logger.debug("Return status and output.")
status(self.output())
```

If put more than one business monitoring class in one plugin:

```
class Register(HttpSearch, HttpCertificate):
    def __init__(self):
        super(Register, self).__init__()
```

Define main function:

```
def main():
    # If just one class
    # plugin = HttpSearch()
    plugin = Register()
    arguments = sys.argv[1:]
    if 'httpsearch' in arguments:
        plugin.httpsearch_handle()
    else:
        plugin.unknown("Unknown Action.")

if __name__ == "__main__":
    main()
```

## CHAPTER 3

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### How to use

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If you want to use this library and the plugins.

You must know something about the monitoring tools and protocols.

Output:

- \$SERVICEOUTPUT\$ -> ShortOutput
- \$SERVICEPERFDATA\$ -> PerfData
- \$LONGSERVICEOUTPUT\$ -> LongOutput

Return code:

- 0 OK
- 1 Warning
- 2 Critical
- 3 Unknown



### 4.1 SNMP

[SNMP] is simple network management protocol.

[pysnmp] is the best third party python library for SNMP.

### 4.2 HTTP

HTTP is Hyper Text Transfer Protocol.

HTTPS is Hyper Text Transfer Protocol over Secure Socket Layer.

[Requests] is the best third party python library for http/https.

### 4.3 FTP

FTP is file transfer protocol.

[ftplib] is standard python library for FTP.

### 4.4 SSH

[SSH] is remote connect protocol.

[Paramiko] is the best third party python library for SSH.

## 4.5 Mysql

[Mysql] is the most popular open source database.

[pymysql] is the best third party python library for mysql.

## 4.6 MSSQL

[MSSQL] is Microsoft Sql Server database.

[pymssql] is the best third party python library for MSSQL.

## 4.7 WinRM

[WinRM] is Windows Remote Management.

[pywinrm] is third party python library for WinRM.

## 4.8 WMI

[WMI] is Windows Management Instrumentation.

[subprocess] is standard python library for WMI.

[sh] is the best third party library to replace subprocess.

## 4.9 Indices and tables

- [genindex](#)
- [modindex](#)
- [search](#)