

**PANDORA**FMS  
E N T E R P R I S E

**Pandora FMS**  
**Administrator Manual**  
**AIX Monitoring**



## *Administrator Manual AIX Monitoring*

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## 1 CHANGES

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Date	Author	Change	Version
17/03/12	Dario	Plugin first version	v1r1

## 2 INTRODUCTION

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This document has as main objective the description of the monitoring of any machine with the HP\_UX Operative System.

Some modules have been chosen according with our experience in system monitoring and the requirements of some of our clients.

To extract the information we use the Recollection layer for the Pandora FMS modules that are susceptible to it, reducing the load of the systems to monitor, or also they have been added through *module\_exec* if it is command, or through *module\_plugin* if it is an agent plugin.

### 3 COMPATIBILITY MATRIX

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The compatibility matrix for the plugin is shown here:

<b>Systems where it has been tested</b>	<ul style="list-style-type: none"> <li>• AIX 5.2</li> <li>• AIX 5.3</li> </ul>
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<b>Systems where it should work</b>	<ul style="list-style-type: none"> <li>• AIX 5.x or higher</li> </ul>
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## 4 COMPULSORY DOCUMENTATION TO HAND IN BY THE AREA THAT REQUIRES THE MONITORING

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The information the area that requires the monitoring should hand in, is the following one:

- The user that executes the Pandora FMS agent should have the necessary permissions to execute the commands and have access to the necessary files without any problems.
- The requirements to this monitoring works right are the following:
  - Pandora FMS agent installed
- Information for the modules:
  - Services to monitor
  - Disks to monitor

## 5 PLUGIN MODULES

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The plugin returns the following modules:

- System CPU
- User CPU
- Active Services (As many as you want)
- Free space of home partition
- Percentage of occupied disk (As many disks as you want)
- Number of active processes
- Number of zombie processes
- Process of active NTP

## 6 MODULES FOR AGENT CODE

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We describe next the different monitoring modules, and also the code of each one of them.

### 6.1. CPU System

---

This module returns the percentage of CPU occupied by system processes. The syntax for the module would be this:

```
module_begin
module_name CPU System
module_type generic_data
module_exec vmstat 1 2 | tail -1 | awk '{ print $15 }' | tr -d "\n"
module_max 100
module_min 0
module_description CPU System used (%)
module_end
```

### 6.2. CPU user

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This module returns the percentage of CPU occupied by user processes. The syntax for the module would be this:

```
module_begin
module_name CPU User
module_type generic_data
module_exec vmstat 1 2 | tail -1 | awk '{print $14}' | tr -d "\n"
module_max 100
module_min 0
module_description CPU User used (%)
module_end
```



## 6.3. Services

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This module searches if one service is running or not. The module syntax would be this:

```
module_begin
module_name Service xxx
module_type generic_proc
module_service xxx
module_description Check service xxx
module_end
```

We should replace xxx by the specific service that we want to monitor.

## 6.4. Free Disk Home

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It returns the number of processes that are running in the machine. The module syntax is the following:

```
module_begin
module_name Free home disk
module_type generic_data
module_freedisk /home
module_description Free disk for home folder
module_end
```

## 6.5. Disk Usage

---

The module returns the percentage of occupied directory. The syntax is the following:

```
module_begin
module_name Disk used xxx
module_type generic_data
module_occupiedpercentdisk /xxx
module_description % Disk used
module_end
```

We should change xxx by the volume to monitor.

## 6.6. Process Number

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Module that returns the number of processes running in the machine.

An example of the syntax would be this:

```
module_begin
module_name Number processes
module_type generic_data
module_exec ps -e | wc -l | tr -d " " | tr -d "\n"
module_description Total number of processes running
module_end
```

## 6.7. Zombie processes

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The module returns the number of zombie processes. The syntax would be this:

```
module_begin
module_name Zombie processes
module_type generic_data
module_exec ps -el | awk '$2~/Z/{print $2}' | wc -l | tr -d "\n" | tr -d " "
module_description Number of zombie processes
module_end
```

## 6.8. NTPD Synchronization

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Monitors the NTPD process status . The syntax for the module is:

```
module_begin
module_name NTP Process
module_type generic_data
module_exec ps -e | grep ntpd | wc -l | tr -d " " | tr -d "\n"
module_description Returns the number of instances of NTPD process
module_end
```