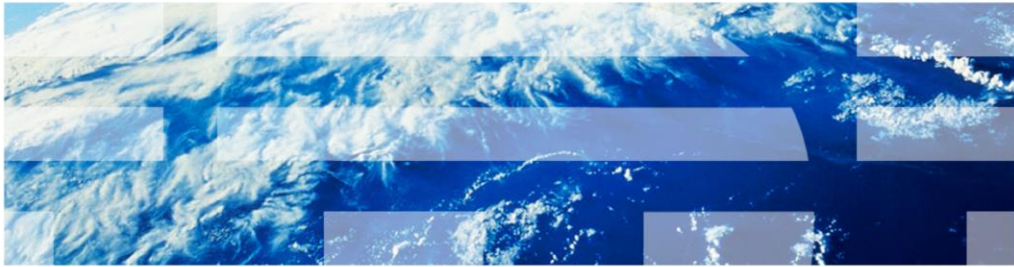


# IBM Tivoli Monitoring V6.2.3

How to use the Process Filter attribute to monitor long process commands on UNIX and Linux systems



© 2012 IBM Corporation

IBM Tivoli® Monitoring V6.2.3, How to use the Process Filter attribute to monitor long process commands on UNIX® and Linux® systems. In this module, you learn how to create a situation that monitors long process commands.

## Assumptions

Before you proceed, the module designer assumes that you have these skills and knowledge:

- Basic knowledge of IBM Tivoli Monitoring
- Working knowledge of the Tivoli Enterprise Portal client and Situation Editor
- A working IBM Tivoli Monitoring environment that includes a Tivoli Monitoring Enterprise Server, a Tivoli Monitoring Portal Server, and user level access to a Tivoli Enterprise Portal client

The module developer assumes that you have these skills and knowledge:

- Basic operating knowledge of IBM Tivoli Monitoring on UNIX and Linux operating systems
- A functioning IBM Tivoli Monitoring environment with at least user level access to the Tivoli Enterprise Portal client

## Objectives

When you complete this module, you can perform these tasks:

- Define a regular expression that captures the essential component or components of the process command line
- Create a situation that alerts you when a specific long process command is either running or is otherwise MISSING

When you complete this module, you can perform these tasks:

- Define a regular expression that uniquely identify the required process command
- Create a situation that generates an alert when the process command is either running or is otherwise MISSING

## Process Filter

To improve filtering on long processes, a new **Process Filter** attribute is introduced in IBM Tivoli Monitoring V6.2.2 fix pack 2, UNIX and Linux OS Agent interim fix 3:

- The Process Filter attribute belongs to the Process attribute group
- The Process Filter content, a regular expression, is sent to the agent as a filter object and is intended to act only on the specific process command attribute during data collection
- The Process Filter attribute is applied to the entire process command line, not just the first 768 characters, and the result fills the corresponding process command attribute
- On UNIX systems, the Process Filter (Unicode) attribute is applied to the Process Command (Unicode) attribute
- On Linux systems, the Process Filter attribute is applied to the Command Line attribute

To improve filtering on long processes, a new Process Filter attribute was introduced in IBM Tivoli Monitoring V6.2.2, fix pack 2, UNIX and Linux OS Agent interim fix 3. The Process Filter attribute belongs to the Process attribute group.

The Process Filter content, a regular expression, is sent to the agent as a filter object and is intended to only act on a specific process command attribute during data collection. Note the specific attribute that the Process Filter attribute is applied to on UNIX and Linux systems.

## Some key regular expressions

- **.\*java.\***
  - This option matches a command line that contains the characters “java” anywhere in the command
  - Resulting command data is, “...java...”, all characters before and after keyword up to 768 characters
- **.\*(java) .\***
  - This option matches a command line that contains the characters “java” anywhere in the command
  - Resulting command data is, “java”, the matching string within parentheses
- **.\*java.\*nodeagent.\***
  - This option matches a command line that contains the characters “java” anywhere in the command followed by “nodeagent”
  - Resulting command data is, “...java...nodeagent...”, up to 768 characters
- **.\*(java) .\* (nodeagent) .\***
  - This option matches a command line that contains the characters “java” anywhere in the command followed by “nodeagent”
  - Resulting command data is, “java nodeagent”, note the space that separates the two matched keywords
- **(begin) .\* (middle) .\* (end)**
  - This option matches a command line that starts with the characters “begin” followed by “middle” and ending with “end”
  - The resulting command data is, “begin middle end”, note the space that separates each matched keyword

Here are several very useful regular expressions that you can use when attempting to match the required process command line. Notice carefully how each will produce different results in the corresponding command data based on the matching keyword with and without parentheses. The use of parentheses helps reduce the command line to just the keywords of interest such that it can be easily searched.

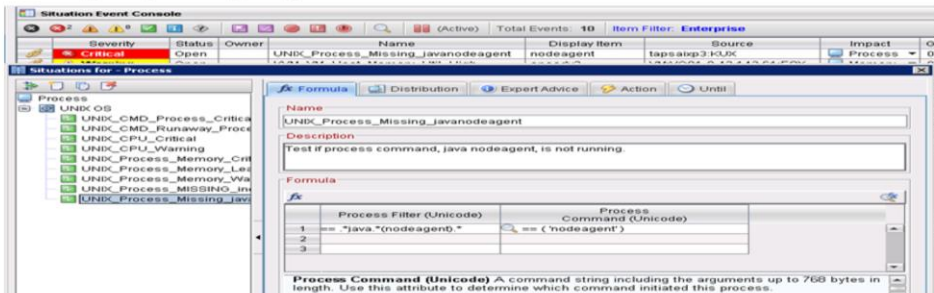
## Process Command Monitor (UNIX OS Agent)

- A long Java process command:

```
/u02/IBM/WebSphere/AppServer/java/bin/java -Xbootclasspath/p:...
...policy=/u02/IBM/WebSphere/AppServer/profiles/profileManaged/propert
ies/server.policy com.ibm.ws.bootstrap.WSLauncher
com.ibm.ws.runtime.WsServer
/u02/IBM/WebSphere/AppServer/profiles/profileManaged/configDU01
DU01dkencaap001a nodeagent
```

- Situation definition to alert when this process is not running or is otherwise MISSING:

**(Process Filter (Unicode) == '\*.java.\*(nodeagent).\*' AND MISSING(Process Command (Unicode)) == ('nodeagent'))**



6

How to use the Process Filter attribute to monitor long process commands on UNIX and Linux systems

© 2012 IBM Corporation

Here is an example of a process command running on a UNIX system. A situation defines a filter that uniquely identify the keywords in the process command. The use of the MISSING operator detects when the process is not running. The Situation Editor in the foreground show the actual definition. The situation event console in the background show the actual event alert.

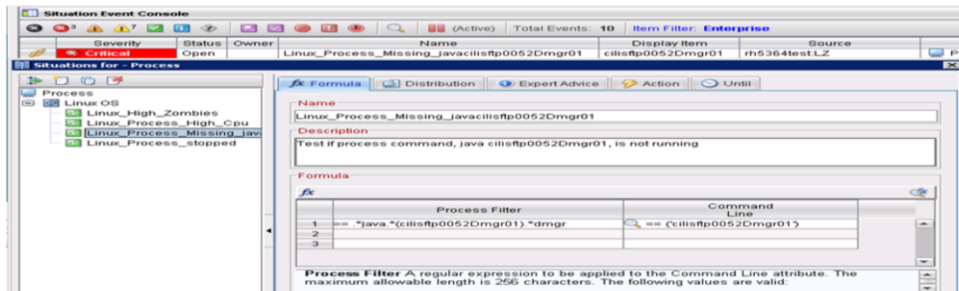
## Process Command Monitor (Linux OS Agent)

- A long Java process command:

```
/opt/was70/AppServer/java/bin/java -Declipse.security -Dwas.status...
...policy=/opt/was70/AppServer/profiles/Dmgr01/properties/server.polic
y com.ibm.wsspi.bootstrap.WSPreLauncher -nosplash -application
com.ibm.ws.bootstrap.WSLauncher com.ibm.ws.runtime.WsServer
/opt/was70/AppServer/profiles/Dmgr01/config cilisftp0052Cell101
cilisftp0052Dmgr01 dmgr
```

- Situation definition to alert when this process is not running or is otherwise MISSING:

**( Process Filter == .\*java.\*(cilisftp0052Dmgr01).\*dmgr AND MISSING(Command Line)  
 == ('cilisftp0052Dmgr01'))**



7

How to use the Process Filter attribute to monitor long process commands on UNIX and Linux systems

© 2012 IBM Corporation

Here is an example of a process command line running on a Linux system. A situation defines a filter that uniquely identify the keywords in the process command line. The use of the MISSING operator detects when the process is not running. The Situation Editor in the foreground show the actual definition. The situation event console in the background show the actual event alert.

## Summary

Now that you completed this module, you can perform these tasks:

- Define a regular expression that captures the essential component or components of the process command line
- Create a situation that alerts you when a specific long process command is either running or is otherwise MISSING

Now you can perform the tasks to define a regular expression that uniquely identify the desired process command and create a situation that generates an alert when the process command is either running or is otherwise MISSING.



## Trademarks, disclaimer, and copyright information

IBM, the IBM logo, ibm.com, and Tivoli are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of other IBM trademarks is available on the web at "[Copyright and trademark information](http://www.ibm.com/legal/copytrade.shtml)" at <http://www.ibm.com/legal/copytrade.shtml>

Linux is a registered trademark of Linus Torvalds in the United States, other countries, or both.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Other company, product, or service names may be trademarks or service marks of others.

THE INFORMATION CONTAINED IN THIS PRESENTATION IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. WHILE EFFORTS WERE MADE TO VERIFY THE COMPLETENESS AND ACCURACY OF THE INFORMATION CONTAINED IN THIS PRESENTATION, IT IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. IN ADDITION, THIS INFORMATION IS BASED ON IBM'S CURRENT PRODUCT PLANS AND STRATEGY, WHICH ARE SUBJECT TO CHANGE BY IBM WITHOUT NOTICE. IBM SHALL NOT BE RESPONSIBLE FOR ANY DAMAGES ARISING OUT OF THE USE OF, OR OTHERWISE RELATED TO, THIS PRESENTATION OR ANY OTHER DOCUMENTATION. NOTHING CONTAINED IN THIS PRESENTATION IS INTENDED TO, NOR SHALL HAVE THE EFFECT OF, CREATING ANY WARRANTIES OR REPRESENTATIONS FROM IBM (OR ITS SUPPLIERS OR LICENSORS), OR ALTERING THE TERMS AND CONDITIONS OF ANY AGREEMENT OR LICENSE GOVERNING THE USE OF IBM PRODUCTS OR SOFTWARE.

© Copyright International Business Machines Corporation 2012. All rights reserved.