

Mutiny Remote Agent Specification

General Specifications for a Mutiny Remote Agent

8th Edition

Revised 10th June 2010

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Introduction

This document describes the interface between the Mutiny Monitoring Software (Appliance) and any Mutiny Remote Agent (RA) software that may be installed on one of the network devices that the Mutiny system is monitoring (the Mutiny Network Monitoring software is described elsewhere).

Each RA will run as a service (or process) on one of the servers that Mutiny is monitoring.

Each RA will normally be devoted to monitoring a single application. This is defined as the Monitored Application (MA).

The RA will periodically check the status of the MA by performing a series of useful and appropriate tests.

Some of the tests will be user configurable and others will be preset.

At the end of every testing cycle, the RA will record its results, in the correct format, in its specific Remote Agent results file (RF) in the file system of the monitored system for Mutiny to read (via SNMP) and report on.

Mandatory Requirements (All Operating Systems)

1. Each RA must be given a unique case-sensitive name (“<AgentName>”).
2. The RA will regularly perform a checking cycle. The interval at which this happens defined as the cycle time TCYCLE.
3. At the end of every cycle, the RA will make a decision on the overall status of the application (or other properties) that it is monitoring. This is defined as ISTATUS (integer) as follows:
 - ISTATUS is set to 1 if the MA is considered to be working normally and within the required operational limits (i.e. the “OK” state).
 - ISTATUS is set to 0 if the MA is considered to have failed or not operating correctly. This defined as the “Critical” state.
 - ISTATUS is set to 2 the MA is generally functioning but not within the required operational limits or there are some conditions that gives cause for concern. This is defined as the “Warning” state.
 - ISTATUS is set to 3 if the RA was not able to fully determine the status of the MA.

- ISTATUS is set to 4 if the RA was instructed to not monitor the MA during the last cycle as a result of user configuration.
4. At the end of every cycle, the RA will update its RF by writing the results in the correct format (specified in Requirements 17 & 18 below).
 5. After writing the RF, the RA will then “sleep” until its next cycle is due to start.

Mandatory Requirements (Windows RAs only)

6. Windows RAs should operate under all current Microsoft Windows Win32 operating systems. Specifically this will be:
 - Windows 2000
 - Windows 2003
 - Windows 2008
 - Windows XP
 - Windows 7/Vista
7. The RA must be capable of running as a System Service that can be installed, started, stopped and configured in a similar way to the standard Microsoft SNMP Service (and others).
8. A GUI must be provided in order to configure and control the RA in a standard manner. The system administrator should be able to select the icon from the “Start/Programs” menu and enter the configuration GUI by double-clicking on it.
9. The GUI should, wherever possible, follow the layout, look and feel of other Mutiny RA interfaces.
10. A suitable installation utility (e.g. “Setup.exe”) should be provided to install the RA as a Service on the server that is to be monitored and create an icon for the configuration GUI in the Windows Control Panel.
11. Any files associated with the RA that need to be installed should be located in the folder: “C:\Program Files\Mutiny\<AgentName>”. The user may override this and choose an alternative folder from the setup utility.
12. Any Registry Keys that need to be installed **must** be located in the Registry Path:


```
“My Computer\HKEY_LOCAL_MACHINE\SOFTWARE\Mutiny\<AgentName>”
```
13. The RA will regularly perform a checking cycle during which it will carry out its prescribed and configured tests. At the end of each cycle, it will write the RF.
14. The name of the RF is defined as follows:


```
<AgentsFolder>\<AgentName>.txt
```

Where “<Agent Folder>” is specified by the pre-existing Windows Registry value:

```
“My Computer\HKEY_LOCAL_MACHINE\SOFTWARE\Mutiny\SNMPAgent\TestDir\PathName”
```

This key and the folder are created by the “Mutiny SNMP Agent v3.5” which must be installed prior to the installation of any RA.
15. It should be possible to change the default cycle time (TCYCLE) of 60 seconds. This should be a “Pick From” list” with values from 1 to 60 minutes.

16. Any Error, Warning or Informational messages from the RA should be written to the Windows Application Log in the appropriate manner.

Format of the Remote Agent Results File (All Operating Systems)

17. At the end of each testing cycle, the RA will write its summarised results into the RF. This file contains a single line which is made up of 5 variable-length fields separated by the vertical split-bar character ("|", ASCII 124).

18. The fields are:

<AgentName>|<Istatus>|<date/time>|<results>|<Further details>|

<AgentName>	- The name of the remote agent (case-sensitive).
<Istatus>	- The value of ISTATUS from Requirement 3. (integer, 1 byte).
<date/time>	- The date and time that the remote agent completed its last cycle of tests (17 bytes in the format "YYYYMMDDHHMMSS").
<results>	- This field contains a short textual summary of the results of the last cycle. Please note that this field must not contain any comma (","), colon (":"), semi-colon (";") or "split-bar" (" ") characters.
<Further Details>	- Contains further details on the results of the last testing cycle. The Field may contain information written in plain text which can include some limited HTML. The HTML tags are restricted to the following only : <ul style="list-style-type: none">• •
• <p>• <div class="indent">

And the corresponding closing "</ >" tags.

19. Some example Agent Results files are listed below:

MsExchange|2|20021013092716|Warning – the outgoing mail queue is becoming large|<http://ec_22.htm>|

SQLServer|1|20020721112916| SQLServer is running normally|<http://ec_1.htm>|

MANGOBOY|1|20050928173000|Mango boy is running normally|The MangoBoy software is installed and running normally.
However, if you want some more diagnostics, we suggest you try the URL below:

Further details on MangoBoy

And if that was no good, try this:

A Great System

The End|

General Specifications (All Operating Systems)

20. The RA may be written in any programming language that is considered appropriate.
21. The developer should ensure that RA is as efficient as possible in its use of CPU, Memory and Disk resources.