

Chapter 4

More Powerful Report Generation Using Conditions

4.1 Foreword

This chapter considers special tags that have the element of conditionality involved in it. Conditionality allows us to both test specific parameters against specific values, and present information in formats that are more convenient.

4.2 Tags for Conditions

Following are tags that have conditionality built into them:

S No	Tag	Comments
1	<code><sa_select_case></code> , <code><sa_case></code> , <code></sa_select_case></code> , <code></sa_case></code>	This is equivalent to the programming construct of {begin case} {end case}, where the <code><sa_case></code> checks for the conditions you are concerned with. The variable is instanced in the initial tag <code><sa_select_case></code> (see below).
2	<code><saif></code> , <code></saif></code>	This tag checks for logical conditions that may include the logical operators AND and OR.

4.2.1 The <saif> and </saif> tags

This tag pair is so important that it deserves a separate section by itself. It can check the values that a host of variables can take on, and check them simultaneously with the combination of logical operators AND and OR. Based on the true/false outcome of the condition testing of the tag, specific HTML snippets may be executed or inserted.

Following are the three different ways that <saif>, </saif> may be used:

1. <saif Variable1 IS value1 AND variable2 IS value2> some-action </saif>
2. <saif Variable1 IS value1 OR variable2 IS value2> some-action </saif>
3. <saif Variable1 NOT value1> some-action </saif>

It may be noted that the <saif></saif> section has to be without any line-breaks, appearing on a single line of the template file.

4.2.2 Servers Alive variables that can be checked

Following are the variables whose values may be checked by <saif>, </saif> and <sa_select_case>, </sa_select_case> (see the next section for examples):

1. sa_status: Possible values are UP, DOWN, MAINTENANCE, UNAVAILABLE, UNCHECKED.
2. sa_check: Possible values are NETWARE, ORACLE, SQL, URL, DISKSPACE, PROCESS, SERVICE, PING, IPXPING, UDP, SNMP, WINSOCK, EXTERNAL, AND EXTERNALCOM.
3. sa_hostname: Host name of the entry.
4. sa_hostid: ID assigned to entry.
5. sa_UID: Unique ID assigned automatically to the entry by Servers Alive.
6. sa_depends_on_UID: Returns the UID of the parent entry. This variable is automatically set to -1 if parent entry does not exist.
7. sa_depends_on_entry: This variable returns the description or pretty name of the entry on which the current entry depends.
8. sa_checkresponse: This tag returns whether the SAIF tag contains (CON) or does not contain (NC0) a specific string.
9. sa_prettyname: This variable returns the pretty name of the entry.
10. sa_mute_alerts: This variable returns TRUE or FALSE, depending on whether alerts have been muted.

4.3 Basic HTML Template File involving conditions

Following is the very same basic HTML template file used in chapter 2 earlier; this time amended to incorporate condition-tags. Observe that a line-break is required after the <sa case> condition, in order for it to work.

```
<HTML>
<HEAD>
<TITLE>Condition-Tags, Basic HTML Template</TITLE>

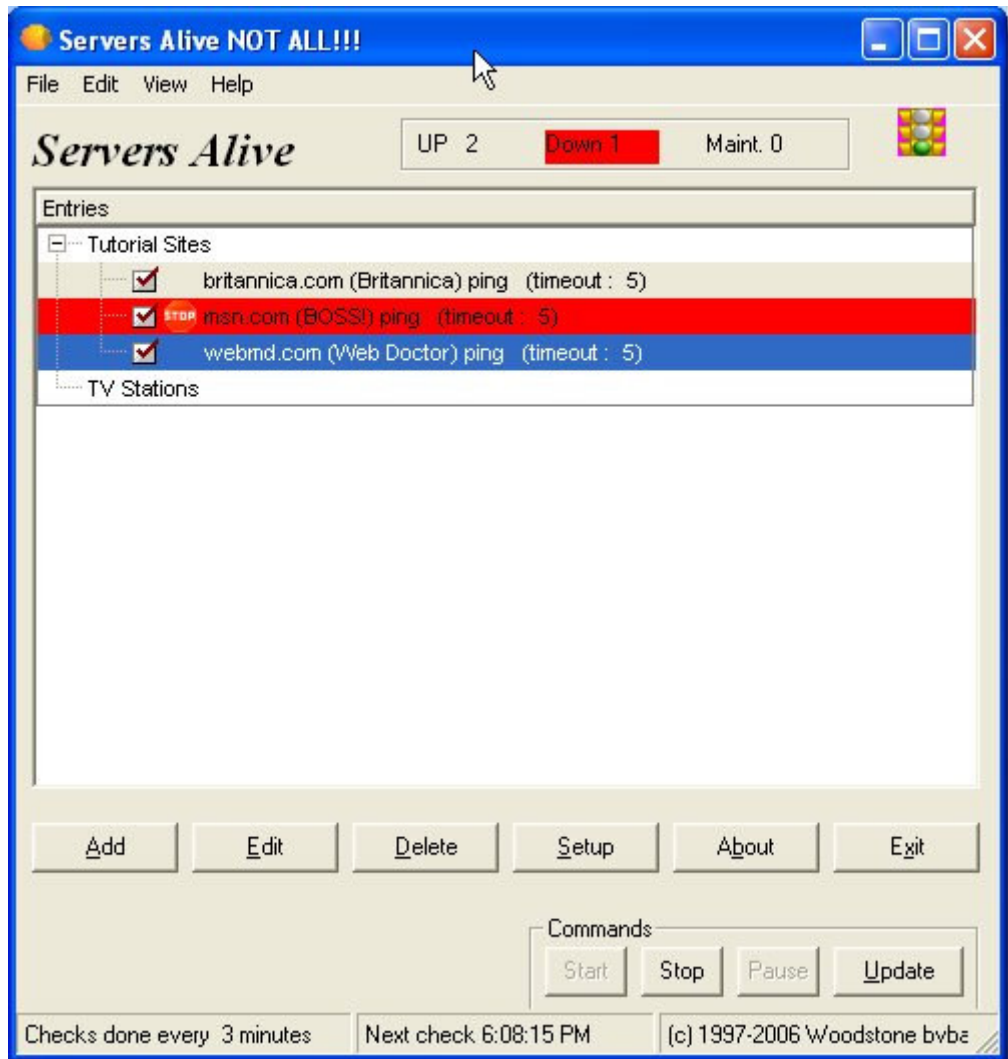
</HEAD>
<BODY>
This report based on Servers Alive version: <sa_version>, running on computer:
<sa_said>.<br><br>
Report Dated: <sa_currentlongdate>, <sa_currentlongtime><br><br>
Monitoring started at <sa_startshortdate>, <sa_startlongtime>.
Number of cycles monitored: <sa_cycles>.<br><br>

<sa_report>
<H4>
Host id = <sa_hostid>, Uid = <sa_uid>.<br>
Host name = <sa_hostname>, also known as <sa_prettyname>.<br>
The full path for this entry is: <sa_fullpath>.<br>
</H4>
Status value = <sa_status><br>
<sa_select_case status>
  <sa_case UP>
    
  <i><sa_checkdescription></i><br>
  <sa_case DOWN>
    
  <b><sa_checkdescription></b><saif sa_prettyname IS "BOSS!" AND sa_status IS
DOWN><h4><FONT color = "ff0f00"><b>---Hey, Boss' Site is DOWN, MAN! Update
your resume, quick!</b></h4><FONT color="000000"></saif>
  <sa_case ELSE>
    <sa_checkdescripti
on><br>
  </sa_select_case>
Roundtrip times: Max. time: <sa_stats_maxrtrip>, Min time:
<sa_stats_minrtrip>.<br>
Total Up cycles: <sa_stats_upcycles>, with consecutive UP time:
<sa_stats_nondowntime>.<br>
Total Down cycles = <sa_stats_downcycles> (<sa_stats_downtime>).<br>
</sa_report>
<BR>
<CENTER>
<H4 align="left"><B><a href="http://www.woodstone.nu/">(c) 1997-2006
Woodstone bvba</a> Servers Alive Tutorial, version - 1.0</B></H4>
</CENTER>
</BODY>
```

</HTML>

4.4 Corresponding Output - Basic Report, but using Condition-Tags

The following screenshot has been taken with three entries, one of them is down.



For each individual entry, in the corresponding properties box -> output tab, the corresponding HTML template page was selected (same as done in Chapter 2). The output report generated follows on the next page.

This report based on Servers Alive version: 6.0.2056, running on computer: SANKALPDEEP.

Report Dated: Friday, December 29, 2006, 6:36:47 PM

Monitoring started at 29/12/2006, 5:35:29 PM. Number of cycles monitored: 41.

Host id = 1, Uid = 1.

Host name = britannica.com, also known as Britannica.

The full path for this entry is: Tutorial Sites\britannica.com (Britannica) ping (timeout : 5).

Status value = RUNNING



ping

Roundtrip times: Max. time: 438 ms, Min time: 373 ms.

Total Up cycles: 35, with consecutive UP time: 100%.

Total Down cycles = 0 (0%).

Host id = 2, Uid = 2.

Host name = msn.com, also known as BOSS!.

The full path for this entry is: Tutorial Sites\msn.com (BOSS!) ping (timeout : 5).

Status value = DOWN



ping

---Hey, Boss' Site is DOWN, MAN! Update your resume, quick!

Roundtrip times: Max. time: -1 ms, Min time: -1 ms.

Total Up cycles: 0, with consecutive UP time: 0%.

Total Down cycles = 35 (100%).

Host id = 3, Uid = 3.

Host name = webmd.com, also known as Web Doctor.

The full path for this entry is: Tutorial Sites\webmd.com (Web Doctor) ping (timeout : 5).

Status value = RUNNING



ping

Roundtrip times: Max. time: 478 ms, Min time: 411 ms.

Total Up cycles: 35, with consecutive UP time: 100%.

Total Down cycles = 0 (0%).

(c) 1997-2006 Woodstone bvba Servers Alive Tutorial, version - 1.0

4.5 HTML Template File Involving Groups And Condition-Tags

Following is the very same HTML template file used in chapter 3, section 3.4 earlier; amended slightly to incorporate condition-tags.

```
<HTML>

<HEAD>
<TITLE>Multiple Entries, TopGroups And Groups</TITLE>
This report based on Servers Alive version: <sa_version>, running on computer:
<sa_said>.<br><br>
Report Dated: <sa_currentlongdate>, <sa_currentlongtime><br><br>

Monitoring started at <sa_startshortdate>, <sa_startlongtime>.
Number of cycles monitored: <sa_cycles>.<br><br>
</HEAD>

<BODY>
<sa_report sort=status,onstatustime>

<sa_topgroupheader>
  <h3>Top Group: <sa_topgroup_name></h3>
</sa_topgroupheader>

<sa_groupheader>
<H4><b><sa_group_name></b></H4>
Number of entries: <sa_group_number_of_entries> (Up=<sa_group_up_entries>,
Down=<sa_group_down_entries>, Maintenance=<sa_group_maintenance_entries>,
Unavailable=<sa_group_unavailable_entries>)<br>

<TABLE WIDTH=700 BORDER=2>
<TR>
<TH> Entry </TH>
<TH> Host Id </TH>
<TH> Response </TH>
<TH> Status </TH> <TH> MaxRndTrips </TH>
<TH> MinRndTrips </TH>
<TH> UpCycles </TH>
<TH> Percent </TH>
<TH> DownCycles </TH>
<TH> DownTime </TH>
</TR>

</sa_groupheader>

<sa_groupfooter>
</TABLE>
</sa_groupfooter>
```

Cont'd to next page ...


```

<TR bgcolor="<saif sa_status is down>ff0f00</saif><saif sa_status is
up>dbdcaf</saif>">
<TD>
<sa_select_case status>
    <sa_case UP>
        <b><sa_hostname> (<sa_checkdescription>)</b>
    <sa_case DOWN>
        <i><sa_hostname> (<sa_checkdescription>)</i>
    <sa_case ELSE>
        <sa_hostname> (<sa_checkdescription>)
</sa_select_case>
</font>
</TD>
<TD WIDTH=4><sa_hostid></TD>
<TD><FONT face = "verdana"
SIZE=1><CENTER><p><sa_checkresponse></p></CENTER></TD>
<TD WIDTH=7 SIZE=1 ALIGN=CENTER><sa_status></TD>
<TD WIDTH=15 ALIGN=CENTER><sa_stats_maxrtrip></TD>
<TD WIDTH=15 ALIGN=CENTER><sa_stats_minrtrip></TD>
<TD WIDTH=10 ALIGN=CENTER><sa_stats_upcycles></TD>
<TD WIDTH=10 ALIGN=CENTER><sa_stats_nondowntime></TD>
<TD WIDTH=10 ALIGN=CENTER><sa_stats_downcycles></TD>
<TD WIDTH=10 ALIGN=CENTER><sa_stats_downtime></TD>

</TR>

</sa_report>
<BR>

<CENTER>
<H4 align="left"><B><a href="http://www.woodstone.nu/">(c) 1997-2006
Woodstone bvba</a> Servers Alive Tutorial, version - 1.0</B></H4>
</CENTER>

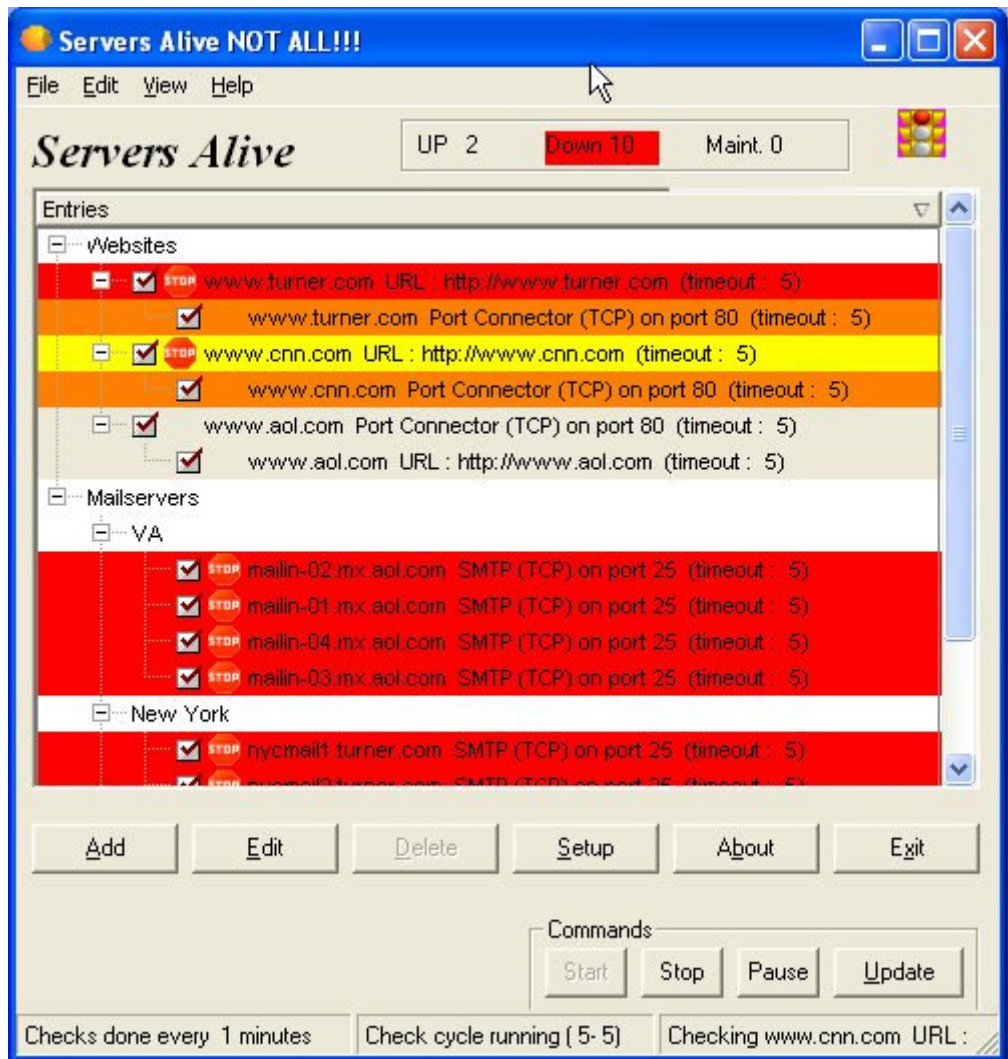
</BODY>

</HTML>

```

4.6 Corresponding Report - Multiple Entries Joined in Groups, With Condition-Tags

The same set of groups as defined in Chapter 3, section 3.3, has been set up for this example. Following is the screenshot:



Following is the report obtained for this example.

This report based on Servers Alive version: 6.0.2056, running on computer: SANKALPDEEP.
Report Dated: Friday, December 29, 2006, 7:09:45 PM
Monitoring started at 29/12/2006, 6:54:09 PM. Number of cycles monitored: 6.

Top Group: Mailservers

Atlanta

Number of entries: 2 (Up=0, Down=2, Maintenance=0, Unavailable=0)

Entry	Host Id	Response	Status	MaxRndTrips	MinRndTrips	UpCycles	Percent	DownCycles	DownTime
atlmail5.turner.com (SMTP (TCP) on port 25)	4	Connection possible, but received data not correct ()	DOWN	-1 ms	-1 ms	0	0%	5	100%
atlmail3.turner.com (SMTP (TCP) on port 25)	4	Connection possible, but received data not correct ()	DOWN	-1 ms	-1 ms	0	0%	5	100%

New York

Number of entries: 2 (Up=0, Down=2, Maintenance=0, Unavailable=0)

Entry	Host Id	Response	Status	MaxRndTrips	MinRndTrips	UpCycles	Percent	DownCycles	DownTime
nycmail2.turner.com (SMTP (TCP) on port 25)	2	Connection possible, but received data not correct ()	DOWN	-1 ms	-1 ms	0	0%	5	100%
nycmail1.turner.com (SMTP (TCP) on port 25)	2	Connection possible, but received data not correct ()	DOWN	-1 ms	-1 ms	0	0%	6	100%

Top Group: Websites

Websites

Number of entries: 6 (Up=6, Down=0, Maintenance=0, Unavailable=0)

Entry	Host Id	Response	Status	MaxRndTrips	MinRndTrips	UpCycles	Percent	DownCycles	DownTime
www.turner.com (Port Connector (TCP) on port 80)	14	Connection possible	RUNNING	495 ms	480 ms	4	100%	0	0%
www.turner.com (URL : http://www.turner.com)	6	200 OK	RUNNING	2681 ms	1880 ms	3	60%	2	40%
www.cnn.com (Port Connector (TCP) on port 80)	13	Connection possible	RUNNING	3415 ms	488 ms	4	100%	0	0%
www.cnn.com (URL : http://www.cnn.com)	1	200 OK	RUNNING	25128 ms	4967 ms	4	66.667%	2	33.333%
www.aol.com (URL : http://www.aol.com)	7	200 OK	RUNNING	8480 ms	4145 ms	6	100%	0	0%
www.aol.com (Port Connector (TCP) on port 80)	12	Connection possible	RUNNING	3514 ms	540 ms	6	100%	0	0%

In the above report, information about VA had to be snipped away as it was occupying redundant space.

4.7 End Word

In this chapter we have seen how reporting can be made more relevant and interesting by including condition-tags in the HTML code.
