

Task:

Create item and develop custom trigger for log monitoring (you can use httpd or tomcat logs)
Create a trigger for errors in log file monitored by that item

<input type="checkbox"/>	Wizard	Name ▲	Triggers	Key	Interval	History	Trends	Type	Applications	Status	Info
<input type="checkbox"/>	...	Checking tomcat logs	Triggers 2	log[/var/log/tomcat/catalina.2019-07-01.log]	30s	90d		Zabbix agent (active)		Enabled	
Displaying 1 of 1 found											
0 selected <input type="button" value="Enable"/> <input type="button" value="Disable"/> <input type="button" value="Check now"/> <input type="button" value="Clear history"/> <input type="button" value="Copy"/> <input type="button" value="Mass update"/> <input type="button" value="Delete"/>											
Zabbix 4.0.10. © 2001–2019. Zabbix SIA											

<input type="checkbox"/>	High	OK	Check the status of tomcat	{httpdtomcat.log[/var/log/tomcat/catalina.2019-07-01.log]str(WARNING)=1 or {httpdtomcat.log[/var/log/tomcat/catalina.2019-07-01.log]str(ERROR)=1}	Enabled
<input type="checkbox"/>	Information	OK	Template OS Linux: Configured max number of opened files is too low on {HOSTNAME}	{httpdtomcat.kernel.maxfiles.last(0)}<1024	Enabled
<input type="checkbox"/>	Information	OK	Template OS Linux: Configured max number of processes is too low on {HOSTNAME}	{httpdtomcat.kernel.maxproc.last(0)}<256	Enabled
<input type="checkbox"/>	Warning	OK	Template OS Linux: Disk IO is overloaded on {HOSTNAME}	{httpdtomcat.system.cpu.util[.iowait].avg(5m)}>20	Enabled
<input type="checkbox"/>	Warning	OK	Mounted filesystem discovery: Free disk space is less than 20% on volume /	{httpdtomcat.vfs.fs.size[/.pfree].last(0)}<20	Enabled
<input type="checkbox"/>	Warning	OK	Mounted filesystem discovery: Free disk space is less than 20% on volume /boot	{httpdtomcat.vfs.fs.size[boot.pfree].last(0)}<20	Enabled
<input type="checkbox"/>	Warning	OK	Mounted filesystem discovery: Free inodes is less than 20% on volume /	{httpdtomcat.vfs.fs.inode[/.pfree].last(0)}<20	Enabled
<input type="checkbox"/>	Warning	OK	Mounted filesystem discovery: Free inodes is less than 20% on volume /boot	{httpdtomcat.vfs.fs.inode[boot.pfree].last(0)}<20	Enabled
<input type="checkbox"/>	Information	OK	Template OS Linux: Host information was changed on {HOSTNAME}	{httpdtomcat.system.uptime.diff(0)}>0	Enabled
<input type="checkbox"/>	Information	OK	Template App Zabbix Agent: Host name of zabbix_agentd was changed on {HOSTNAME}	{httpdtomcat.agent.hostname.diff(0)}>0	Enabled
<input type="checkbox"/>	Information	OK	Template OS Linux: Hostname was changed on {HOSTNAME}	{httpdtomcat.system.hostname.diff(0)}>0	Enabled
<input type="checkbox"/>	Average	OK	Template OS Linux: Lack of available memory on server {HOSTNAME}	{httpdtomcat.vm.memory.size[available].last(0)}<20M	Enabled
<input type="checkbox"/>	Warning	OK	Template OS Linux: Lack of free swap space on {HOSTNAME}	{httpdtomcat.system.swap.size[pfree].last(0)}<50	Enabled
<input type="checkbox"/>	Warning	OK	Template OS Linux: Processor load is too high on {HOSTNAME}	{httpdtomcat.system.cpu.load[percpu.avg1].avg(5m)}>5	Enabled
<input type="checkbox"/>	Warning	OK	Template OS Linux: Too many processes on {HOSTNAME}	{httpdtomcat.proc.num[.avg(5m)]>300	Enabled
<input type="checkbox"/>	Warning	OK	Template OS Linux: Too many processes running on {HOSTNAME}	{httpdtomcat.proc.num[.run].avg(5m)}>30	Enabled
<input type="checkbox"/>	Warning	PROBLEM	Undeploy hello-world.app	{httpdtomcat.log[/var/log/tomcat/catalina.2019-07-01.log]str(Undeploying*hello-world)=1}	Enabled

httpdtomcat: Checking tomcat logs

View as

Values

As plain text

<

Zoom out

>

Last 2 days

Filter

From

now-2d

To

now

Apply

Last 2 days

Yesterday

Today

Last 5 minutes

Last 7 days

Day before yesterday

Today so far

Last 15 minutes

Last 30 days

This day last week

This week

Last 30 minutes

Last 3 months

Previous week

This week so far

Last 1 hour

Last 6 months

Previous month

This month

Last 3 hours

Last 1 year

Previous year

This month so far

Last 6 hours

Last 2 years

This year

This year so far

Last 12 hours

Last 1 day

Timestamp	Local time	Value
2019-07-01 18:33:46		INFO: Undeploying context [/hello-world]
2019-07-01 17:57:46		INFO: Undeploying context [/hello-world]
2019-07-01 17:57:16		INFO: Deployment of web application archive /var/lib/tomcat/webapps/hello-world.war has finished in 112 ms
2019-07-01 17:57:16		INFO: At least one JAR was scanned for TLDs yet contained no TLDs. Enable debug logging for this logger for a complete list of JARs that were scanned but no TLDs were found in them. Skipping unneeded JARs during scanning can improve startup time and JSP compilation time.
2019-07-01 17:57:16		INFO: Deploying web application archive /var/lib/tomcat/webapps/hello-world.war
2019-07-01 17:57:16		INFO: Undeploying context [/hello-world]
2019-07-01 16:10:46		INFO: Server startup in 1305 ms
2019-07-01 16:10:46		INFO: Starting ProtocolHandler ["ajp-bio-8009"]
2019-07-01 16:10:46		INFO: Starting ProtocolHandler ["http-bio-8080"]
2019-07-01 16:10:46		INFO: Deployment of web application directory /var/lib/tomcat/webapps/manager has finished in 127 ms
2019-07-01 16:10:46		INFO: At least one JAR was scanned for TLDs yet contained no TLDs. Enable debug logging for this logger for a complete list of JARs that were scanned but no TLDs were found in them. Skipping unneeded JARs during scanning can improve startup time and JSP compilation time.
2019-07-01 16:10:46		INFO: Deploying web application directory /var/lib/tomcat/webapps/manager
2019-07-01 16:10:46		INFO: Deployment of web application directory /var/lib/tomcat/webapps/host-manager has finished in 129 ms
2019-07-01 16:10:46		INFO: At least one JAR was scanned for TLDs yet contained no TLDs. Enable debug logging for this logger for a complete list of JARs that were scanned but no TLDs were found in them. Skipping unneeded JARs during scanning can improve startup time and JSP compilation time.
2019-07-01 16:10:46		INFO: Deploying web application directory /var/lib/tomcat/webapps/host-manager

Triggers

All hosts / httpd:tomcat Enabled **ZBX** SNMP JMX IPMI Applications 10 Items 49 Triggers 21 Graphs 9 Discovery rules 2

Trigger Dependencies

* Name

Severity ☐ Not classified ☐ Information ☐ Warning ☒ Average ☐ High ☐ Disaster

* Expression [Add](#)

[Expression constructor](#)

OK event generation ☐ Expression ☐ Recovery expression ☐ None

PROBLEM event generation mode ☐ Single ☐ Multiple

OK event closes ☐ All problems ☐ All problems if tag values match

Tags [Remove](#)

[Add](#)

Allow manual close ☐

URL

Description

Enabled ☒

[Update](#) [Clone](#) [Delete](#) [Cancel](#)

Zabbix 4.0.10

Triggers

All hosts / httpd:tomcat Enabled **ZBX** SNMP JMX IPMI Applications 10 Items 49 Triggers 21 Graphs 9 Discovery rules 2 Web

Trigger Dependencies

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Tags [Remove](#)

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URL

Description

Enabled ☒

[Update](#) [Clone](#) [Delete](#) [Cancel](#)

Zabbix 4.0.10

Simple checks:
Zabbix Server WEB availability (80)
Zabbix DB is available (3306)

	Zabbix server	UNIT - (zabbix)				
<input type="checkbox"/>		Zabbix DB is available	2019-07-01 20:52:27	0.0002		Graph
<input type="checkbox"/>		Zabbix Server WEB availability	2019-07-01 20:52:26	0.0001		Graph

Host [Select](#) Update interval History Status

Application [Select](#) Trends Triggers

Name Template

Key Discovery

[Apply](#) [Reset](#)

Subfilter affects only filtered data

<input type="checkbox"/>	Wizard	Name ▲	Triggers	Key	Interval	History	Trends	Type	Applications	Status	Info
<input type="checkbox"/>	...	Zabbix DB is available		net.tcp.service.per[http,3306]	30s	90d	365d	Simple check		Enabled	
<input type="checkbox"/>	...	Zabbix Server WEB availability		net.tcp.service.per[http]	30s	90d	365d	Simple check		Enabled	

Displaying 2 of 2 found

Tomcat availability (80, 8080)
Tomcat Server is available by ssh (22)

<input type="checkbox"/>	Tomcat availability(80)	2019-07-01 19:31:29	0.0005	Graph
<input type="checkbox"/>	Tomcat availability(8080)	2019-07-01 19:31:28	0.0004	Graph
<input type="checkbox"/>	Tomcat Server is available by ssh	2019-07-01 19:31:30	0.0083	Graph

<input type="checkbox"/>	...	system.cpu.discovery	system.cpu.discovery	30s	90d		Zabbix agent	Enabled
<input type="checkbox"/>	...	Tomcat availability(80)	net.tcp.service.perf[http]	30s	90d	365d	Simple check	Enabled
<input type="checkbox"/>	...	Tomcat availability(8080)	net.tcp.service.perf[http,,8080]	30s	90d	365d	Simple check	Enabled
<input type="checkbox"/>	...	Tomcat Server is available by ssh	net.tcp.service.perf[ssh]	30s	90d	365d	Simple check	Enabled

CPU Load per Core (1, 5, 15min)

EnabledZBXSNMPJMXIPMIApplications 10Items 62Triggers 21Graphs 9Discovery rules 2

* NameCPU Load per Core (5 min)

TypeCalculated

* Keyload.cpu.300

* Formulalast("system.cpu.load[avg5])/last("system.cpu.num")

Type of InformationNumeric (float)

Units

* Update Interval30s

Custom intervals

TypeIntervalPeriod

FlexibleScheduling50s1-7:00:00-24:00

Add

History storage period90d

Index storage period365d

Show valueAs is

New application

Applications

None-

CPU

Filesystems

General

Memory

Network interfaces

OS

Performance

Processes

Security

edZBXSNMPJMXIPMIApplications 10Items 62Triggers 21Graphs 9Discovery rules 2

* NameCPU Load per Core (15 min)

TypeCalculated

* Keyload.cpu.1500

* Formulalast("system.cpu.load[avg15])/last("system.cpu.num")

Type of InformationNumeric (float)

Units

* Update Interval30s

Custom intervals

TypeIntervalPeriod

FlexibleScheduling50s1-7:00:00-24:00

Add

History storage period90d

Index storage period365d

Show valueAs is

New application

Applications

None-

CPU

Filesystems

General

Memory

Network interfaces

OS

Performance

Processes

Security

* NameCPU Load per Core (1 min)

TypeCalculated

* Keyload.cpu.60

Formulalast("system.cpu.load[avg1])/last("system.cpu.num")

Type of InformationNumeric (float)

Units

* Update Interval30s

Custom intervals

TypeIntervalPeriod

FlexibleScheduling50s1-7:00:00-24:00

Add

History storage period90d

Index storage period365d

Show valueAs is

New application

Applications

None-

CPU

Filesystems

General

Memory

Network interfaces

OS

Performance

Processes

Security

How many items are enabled
How many Servers are being monitored
My value

Checking tomcat logs	2019-07-01 18:33:46	INFO: Undeploying context [/hello-wo...	History
Count items	2019-07-01 21:32:37	140	Graph
Count services	2019-07-01 21:32:15	62	Graph
Cpu Load 1 min	2019-07-01 21:32:22	0	Graph
Cpu Load 5 min	2019-07-01 21:32:23	0.01	Graph
Cpu Load 15 min	2019-07-01 21:32:24	0.05	Graph
CPU Load per Core (1 min)	2019-07-01 21:32:29	0	Graph
CPU Load per Core (5 min)	2019-07-01 21:32:26	0.005	Graph
CPU Load per Core (15 min)	2019-07-01 21:32:27	0.03	Graph
Number of CPU	2019-07-01 21:32:31	2	Graph
system.cpu.discovery	2019-07-01 21:32:12	{ "data":["{#CPU.NUMBER}";0,"{#CP...	History
Tomcat availability(80)	2019-07-01 21:32:29	0.0004	Graph
Tomcat availability(8080)	2019-07-01 21:32:28	0.0004	Graph
Tomcat Server is available by ssh	2019-07-01 21:32:30	0.008	Graph

CUSTOM

▼	httpd.tomcat	Performance (15 items)			
<input type="checkbox"/>		Context switches per second	2019-07-01 21:34:07	126 sps	Graph
<input type="checkbox"/>		CPU guest nice time	2019-07-01 21:34:09	0 %	Graph
<input type="checkbox"/>		CPU guest time	2019-07-01 21:34:08	0 %	Graph
<input type="checkbox"/>		CPU idle time	2019-07-01 21:34:10	99.95 %	Graph
<input type="checkbox"/>		CPU interrupt time	2019-07-01 21:34:11	0 %	Graph
<input type="checkbox"/>		CPU iowait time	2019-07-01 21:34:12	0 %	Graph
<input type="checkbox"/>		CPU nice time	2019-07-01 21:34:13	0 %	Graph
<input type="checkbox"/>		CPU softirq time	2019-07-01 21:34:14	0.02 %	+0.01 % Graph
<input type="checkbox"/>		CPU steal time	2019-07-01 21:34:15	0 %	Graph
<input type="checkbox"/>		CPU system time	2019-07-01 21:34:16	0.03 %	Graph
<input type="checkbox"/>		CPU user time	2019-07-01 21:34:17	0.0083 %	Graph
<input type="checkbox"/>		Interrupts per second	2019-07-01 21:34:03	92 ips	Graph
<input type="checkbox"/>		Processor load (1 min average per core)	2019-07-01 21:34:05	0	Graph
<input type="checkbox"/>		Processor load (5 min average per core)	2019-07-01 21:34:06	0.005	Graph
<input type="checkbox"/>		Processor load (15 min average per core)	2019-07-01 21:34:04	0.03	Graph