

# Zabbix Log Management Crash Course

Running time: 50 minutes

# Configuring logging

## Pre-3.0

- LogFile (if not set, syslog used)
- LogFileSize
- DebugLevel

# Configuring Logging in 3.0

3.0+

- **LogType** – system/file/console
- **LogFile** (if LogType=file)
- LogFileSize
- DebugLevel

# Log Format

Not configurable

1714:20160909:031847.509 log message

The diagram illustrates the structure of the log entry '1714:20160909:031847.509 log message'. Blue brackets are drawn under the first four parts of the string to identify them as fields. Below each bracket is a label: 'PID' under '1714', 'date' under '20160909', 'time' under '031847', and 'ms' under '.509'. The text 'log message' is not bracketed and represents the message content.

PID      date      time      ms

# Log-related Issues

Each process opens logfile individually

Holds two filedescriptors

May keep deleted logfiles around (improved in 3.0)

Zabbix processes may hang (ZBX-3788)

<http://blog.zabbix.com/mysterious-zabbix-problems-how-we-debug-them>



# DebugLevel

- 0 - basic information about starting and stopping of Zabbix processes
- 1 - critical information
- 2 - error information
- 3 - warnings
- 4 - for debugging (produces lots of information)
- 5 - **extended debugging** (produces even more information)

# Which One Is Sane?

Almost everybody runs at DebugLevel=3

Embedded devices – lower levels

DebugLevel=4 – if there are known problems

# The Less Sane Ones

- 4 - for debugging (produces lots of information)
- 5 - extended debugging (produces even more information)

But what's "lots of information" and "even more information"?



# DebugLevel 4

\_\_zbx\_zbx\_setproctitle() title:'timer #1 [processed 1 triggers, 0 events in 0.006850 sec, 0 maintenances in 0.000000 sec, processing maintenance periods]'

In process\_maintenance()

query [txnlev:0] [select m.maintenanceid,m.maintenance\_type,m.active\_since,tp.timeperiod\_type,tp.every,tp.month,tp.dayofweek,tp.day,tp.start\_time,tp.period,tp.start\_date from maintenances m,maintenances\_windows mw,timeperiods tp where m.maintenanceid=mw.maintenanceid and mw.timeperiodid=tp.timeperiodid and m.active\_since<=1473415320 and m.active\_till>1473415320]

In update\_maintenance\_hosts()

# DebugLevel 5

DebugLevel=5 adds:

- Received page in webmonitoring
- Received XML in VMware monitoring

<http://blog.zabbix.com/zabbix-2-4-features-part-8-debugging-web-and-vmware-monitoring>



# Runtime Loglevel Changing

Awesome (not just great)

In 2.4 – many upgraded

<http://blog.zabbix.com/zabbix-2-4-features-part-6-runtime-loglevel-changing>



# Change Loglevel for...

Whole Zabbix

One Zabbix process type

Single Zabbix process (by process type & number)

Single Zabbix process (by PID)

# Examples

```
zabbix_server --runtime-control log_level_increase
```

```
zabbix_server -R log_level_increase=poller
```

```
zabbix_server -R log_level_increase=trapper,3
```

```
zabbix_server -R log_level_increase=12345
```

# Bash Completion

```
zabbix_server -R log_level_increase=[tab][tab]
```

```
alerter          discoverer      housekeeper     ipmi\ poller   proxy\ poller   trapper
configuration\  syncer         escalator       http\ poller   java\ poller    self-monitoring unreachable\ poller
db\ watchdog    history\ syncer icmp\ pinger    poller          timer           vmware\ collector
```

# Many Options

zabbix\_get -[tab][tab]

-h	-l	-p	--source-
address	--tls-ca-file	--tls-crl-file	--tls-psk-identity
--help	-k	--port	--tls-agent-
cert-issuer	--tls-cert-file	--tls-key-file	-V
--host	--key	-s	--tls-agent-
cert-subject	--tls-connect	--tls-psk-file	--version

# Want Bash Completion?

Ask your packager

<https://github.com/zabbix/zabbix-bash-completion>





**BOOM-THANK-YOU**