
How to log

jingmi
2010-11-25

Why

- * Check status(Check / Debug / Transaction System)
- * Performance profile
- * Data mining: User action, Point of Interest, Association analysis
- * Anti-spam(JavaEye)
- * Ranking
- * Relevancy
- * Billing

Log VS Debugger

- * No screen
- * Multiple thread
- * High load
- * Multiple nodes

MUST

- * Memory allocate
- * Load file: config files / resource files
- * Create thread
- * Net IO
- * Access log
- * Data verification

SHOULD

- * File IO
- * Interface
- * Cache
- * Transaction finished

Who

- * Main thread

- * Lib



Level



- * Notice: check status
- * Trace: analytics
- * Debug: fix bug
- * Warn
- * Error: services will done

Level(Cont.)

- * Notice: less, better
- * Debug: full information
- * Warn: context



Formation



- * Separator
- * Datetime
- * Pid - Filename - Line No - Function Name
- * Level
- * Message
- * Length

Example(1)

* MongoDB, Redis

- * [15367] 26 Nov 00:19:57 - DB 0: 2 keys (0 volatile) in 4 slots HT.
- * [15367] 26 Nov 00:19:57 - 0 clients connected (0 slaves), 1074992 bytes in use
- * [15367] 26 Nov 00:20:07 - DB 0: 2 keys (0 volatile) in 4 slots HT.
- * [15367] 26 Nov 00:20:07 - 0 clients connected (0 slaves), 1074992 bytes in use
- * [15367] 26 Nov 00:20:12 - DB 0: 2 keys (0 volatile) in 4 slots HT.
- * [15367] 26 Nov 00:20:12 - 0 clients connected (0 slaves), 1074992 bytes in use

* Too many / Performance / Storage

Example(2)

- * Sphinx Log
- * No exception

Example(3)

* NOTICE: 01-21 00:47:07: pspui. * 8194 [logid:1244128892][proctime:7ms] [reqip:117.92.61.63][reqsvr:psp-apache][cmdno:1(LOGIN)][svrname:][**errno:0(ok)**][][][talk(->clogin:{cmd:1 username:dujin vcode:client_ip:117.92.61.63 etimes:2 safef g:0 bduid:C64E8991F17799CEF5EA3A2E04B35D5A:FG=1} ->fm:{cmd:1 username:dujin bduid:C64E8991F17799CEF5EA3A2E04B35D5A:FG=1 ip:117.92.61.63 log_f ag:0} <-fm:**err_no=0,d_err_no=0** <-clogin:**257** ->fm:{cmd:1 username:dujin bduid:C64E8991F17799CEF5EA3A2E04B35D5A:FG=1 ip:117.92.61.63 log_f ag:1}) param(tpl:sp u:./ username:dujin psp_tt:0 bduid:C64E8991F17799CEF5EA3A2E04B35D5A:FG=1) time(receive/process/buildpage/send/TOTAL:0/6/0/0/7ms)]



Principle



- * Detail
- * Never redundant
- * Level
- * Clear
- * Context



Detail



- * Upstream / Downstream
- * Requestor
- * Status
- * Errno
- * Time cost
- * IP, content, etc...

Notes

- * NO VIM
- * NO sort(1), uniq(1)
- * Limit speed if scp(1)



LOG LIB



- * Thread-safe
- * Multiple level, multiple files
- * Rotate log: write new file
- * Flush



Thanks



* Q&A