Events log4j Parser (events-log4j-parser)

* **log4j pattern.** Generalize by adding support for a log4j pattern. Currently we’re only using heuristics.
  + Procedure to Integrate into New Project
  + Debug -f ‘…’ and --format=’…’ on command line and see if I have to change CLI or not to support it
  + Write down the plan if I have to and if I don’t have to.
  + Implement the simplest possible bubble so I can pass Centric’s
  + Use log4j API to parse the pattern layout specification.
  + Make sure heuristics still works in absence of pattern.
* **Format instances thread safety**. Remove public static final SimpleDateFormat and other Formats everywhere, and replace them with static method that create the instances on demand. We need to do this because Format instances are not thread safe. See io.novaordis.events.api.event.DateProperty. getDefaultDateFormat() as example.
* lg rate log-level:ERROR from: to:
* **Replace long field names with shorter ones** that make sense from a log4j perspective – use the corresponding names of the log4j concepts.

timestamp -> time

line-number(Long) -> line

log-category(String) -> category

log-level(String) -> level

message(String) -> msg?

raw(String)

thread(String)

* **Field Query Sanity Check.** If we are using a field query, and none of the events query has that field, warn, because we may be using the wrong field name, not field content.
* **lims.** Write the equivalent of the shell “lims” in log4jp. The bottom limit should not be obtained via sequential processing, but we should go to the end of the file on disk and start processing from there up.
* **Compare output with grep.** Figure out this, why grep finds more events than us:

NOMBP2:03-local-sparky-2.10-3CPU ovidiu$ grep "[0-2]\\d:[0-5]\\d:[0-5]\\d,\\d\\d\\d " server.log | wc -l

84440

NOMBP2:03-local-sparky-2.10-3CPU ovidiu$ log4jp ./server.log | wc -l

78550

NOMBP2:03-local-sparky-2.10-3CPU ovidiu$