Event Stream Analyzer

Map, harden and possibly rename OutputFormatter.

It should be self reliant – we’re getting type information with the events.

I do that with a pipe.

I need to know the types.

I can do that with –i or with headers.

I already have most of –i, let’s make it work.

I probably only need timestamp support.

Plug in the existing resampling (rename?) command.

Run the resampling command and “smooth” the 1, 10, 100, 500 and 1000 users.

Put the graphs in the folder and charge for time.

Uncomment //@Test and make pass.

# TODO

* **Analyze the usage of EndOfStreamEvent and ShutdownEvent** and decide if:
  + a ShutdownEvent is needed
  + if it is not needed, eliminate it
  + if it is needed, define behavior and add appropriate tests at the appropriate levels.
* Currently we take the easy way out by wrapping a HttpdLogLine in an Event – do we want to create a HttpdLogEvent?
* Fix all unit tests (including those commented out)
* Refactor InputStreamInitiator, EventProcessor and OutputStreamTerminator thread internals – there is much common behavior – unify.
  + Currently I deal with EOSListener only in OutputStreamtTerminators – it should be generic.
  + The “logics” need a base class, there is much shared behavior. Analyze what I implemented so far and factor out the common behavior.
* Currently the shutdown is initiated by inserting a ShutdownEvent in the queue. We can also interact with the Component thread directly, if we need to shut it down faster. Think about it.
* Idea: use non-blocking IO in components and read from both a data channel and a control channel. The data channel is an adapter to an InputStream.
* Unit test for resampling.
* Understand fix and document why Maven blocks at the end.
* How to handle exceptions in the logic’s process() High level view.
* Handle EndOfStream in SingleThreadedEventProcessor. Test.
* Uncomment commented out tests and make them pass.
* Need an EndOfStreamEvent
* Need a OutputStreamEvent that gets written to the output stream.
* **EndOfStreamListeners management in ComponentBase.** Analyze EndOfStreamListener usage and decide whether we need to add thread safety for the management functions.
* **Separate in ‘events’, ‘clad’, ‘httpd logs’, ‘csv’**
* **Configuration should also flow as “event”** CSV headers for example.
* **Should allow for null output queues.** It’ll just discard events, but makes easy configuring stuff. Think /dev/null.
* **Possible names:** eventful, events.
* <https://github.com/heroku/logplex>
* <https://github.com/fluent/fluentd>
* <http://www.splunk.com>
* <http://www.logstash.com>

# Manual

## Httpd Log Analysis and HttpEvents

A HttpEvent contains all the query parameters under a “query” MapProperty.

A HttpEvent contains all the incoming headers under a “incoming-headers” MapProperty.