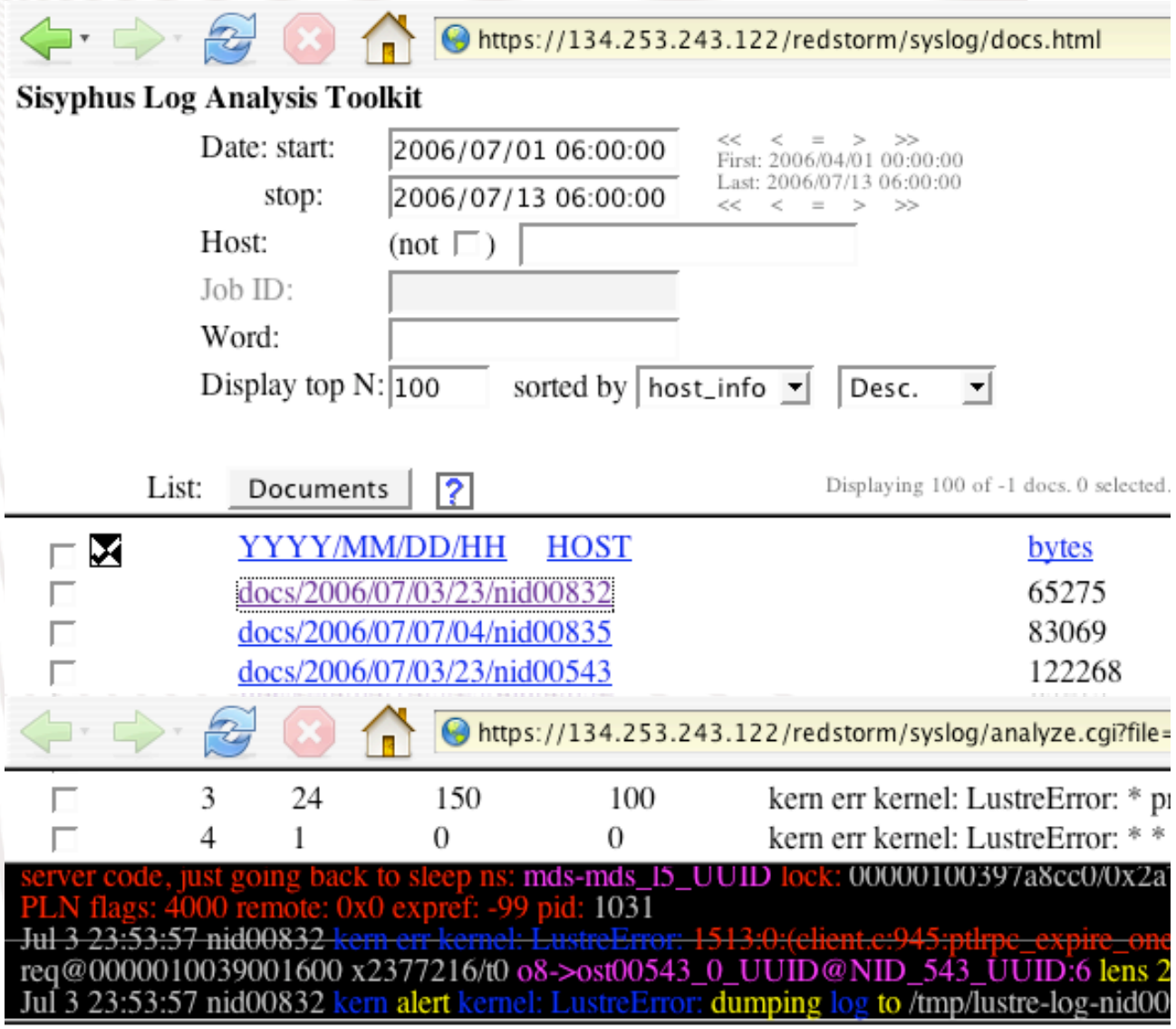

https://134.253.243.122/redstorm/syslog/docs.html
Sisyphus Log Analysis Toolkit
Date: start: 2006/07/01 06:00:00
stop: 2006/07/13 06:00:00
<< < = > >>
First: 2006/04/01 00:00:00
Last: 2006/07/13 06:00:00
Host: (not )
Job ID:
Word:
Display top N: 100 sorted by host_info Desc.
List: Documents
Displaying 100 of -1 docs. 0 selected.
YYYY/MM/DD/HH HOST
bytes
docs/2006/07/03/23/nid00832 65275
docs/2006/07/07/04/nid00835 83069
docs/2006/07/03/23/nid00543 122268
https://134.253.243.122/redstorm/syslog/analyze.cgi?file=
3 24 150 100 kern err kernel: LustreError: * p
4 1 0 0 kern err kernel: LustreError: * *
server code, just going back to sleep ns: mds-mds_l5_UUID lock: 00000100397a8cc0/0x2a
PLN flags: 4000 remote: 0x0 expref: -99 pid: 1031
Jul 3 23:53:57 nid00832 kern err kernel: LustreError: 1513:0:(client.c:945:ptlrpc_expire_one
req@0000010039001600 x2377216/t0 o8->ost00543_0_UUID@NID_543_UUID:6 lens 2
Jul 3 23:53:57 nid00832 kern alert kernel: LustreError: dumping log to /tmp/lustre-log-nid00

## Event logs are:

- **Ubiquitous** (nearly all types of com
- **Informational** (nearly always the fir
- **Voluminous** (infeasible to read all of them)
- **Noisy** (many messages are completely useless)
- **Non-stationary** (characteristics

**Interrogating** (grep) **or monitoring** (log

- **Is common**
- **Can be easy (or NOT)**
- **Can be effective (or NOT)**

**Many hard questions cannot be easily**

Under what conditions does string "xy

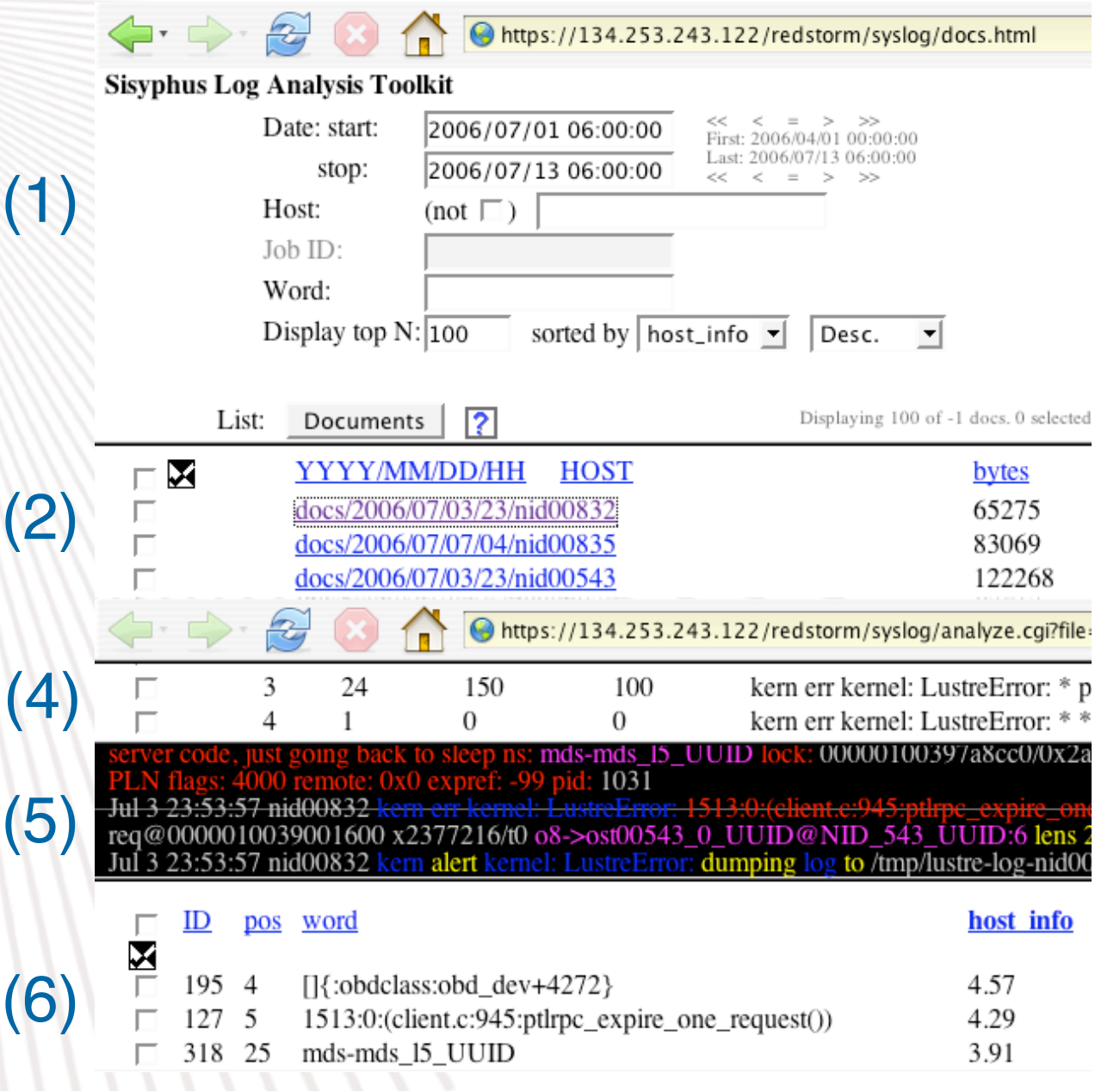
^ e.g. nodes, times,

*Premise:* **Similar computers correctly execu should pr**

*Process:*

**Group** log messages into “document according to time and host factors

**Encode** as a “term-doc” matrix:
**X=GL** where G is a per-term information weight regarding some factor of interest (Host, Time, App, User, etc)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stop: 2006/07/13 06:00:00
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Last: 2006/07/13 06:00:00
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Job ID:
Word:
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(1)
List: Documents
Displaying 100 of -1 docs. 0 selected
YYYY/MM/DD/HH HOST bytes
docs/2006/07/03/23/nid00832 65275
docs/2006/07/07/04/nid00835 83069
docs/2006/07/03/23/nid00543 122268
(2)
https://134.253.243.122/redstorm/syslog/analyze.cgi?file
3 24 150 100 kern err kernel: LustreError: * p
4 1 0 0 kern err kernel: LustreError: * *
(4)
server code, just going back to sleep ns: mds-mds_l5_UUID lock: 000001003 97a8cc0/0x2a
PLN flags: 4000 remote: 0x0 expref: -99 pid: 1031
Jul 3 23:53:57 nid00832 kern err kernel: LustreError: 1513:0:(client.c:945:ptlrpc_expire_one
req@0000010039001600 x2377216/t0 o8->ost00543_0_UUID@NID_543_UUID:6 lens 2
Jul 3 23:53:57 nid00832 kern alert kernel: LustreError: dumping log to /tmp/lustre-log-nid00
(5)
ID pos word host_info
195 4 []{:obdclass:obd_dev+4272} 4.57
127 5 1513:0:(client.c:945:ptlrpc_expire_one_request()) 4.29
318 25 mds-mds_l5_UUID 3.91
(6)

## How effective is it?

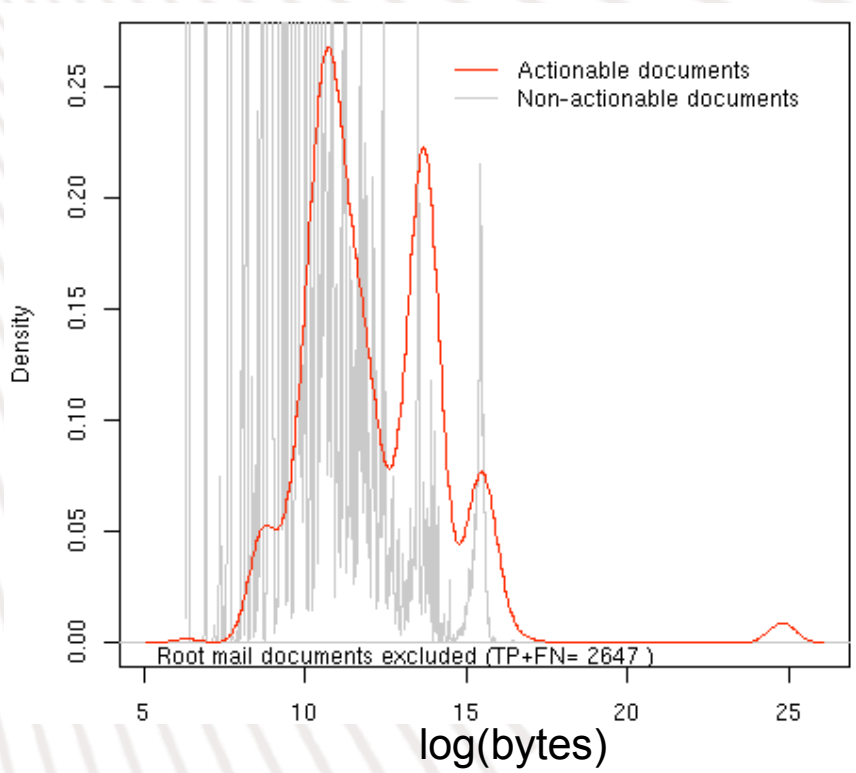
Of the 33 **GL** Combinations Tested, host information weighting provides exceptionally good fault detection.

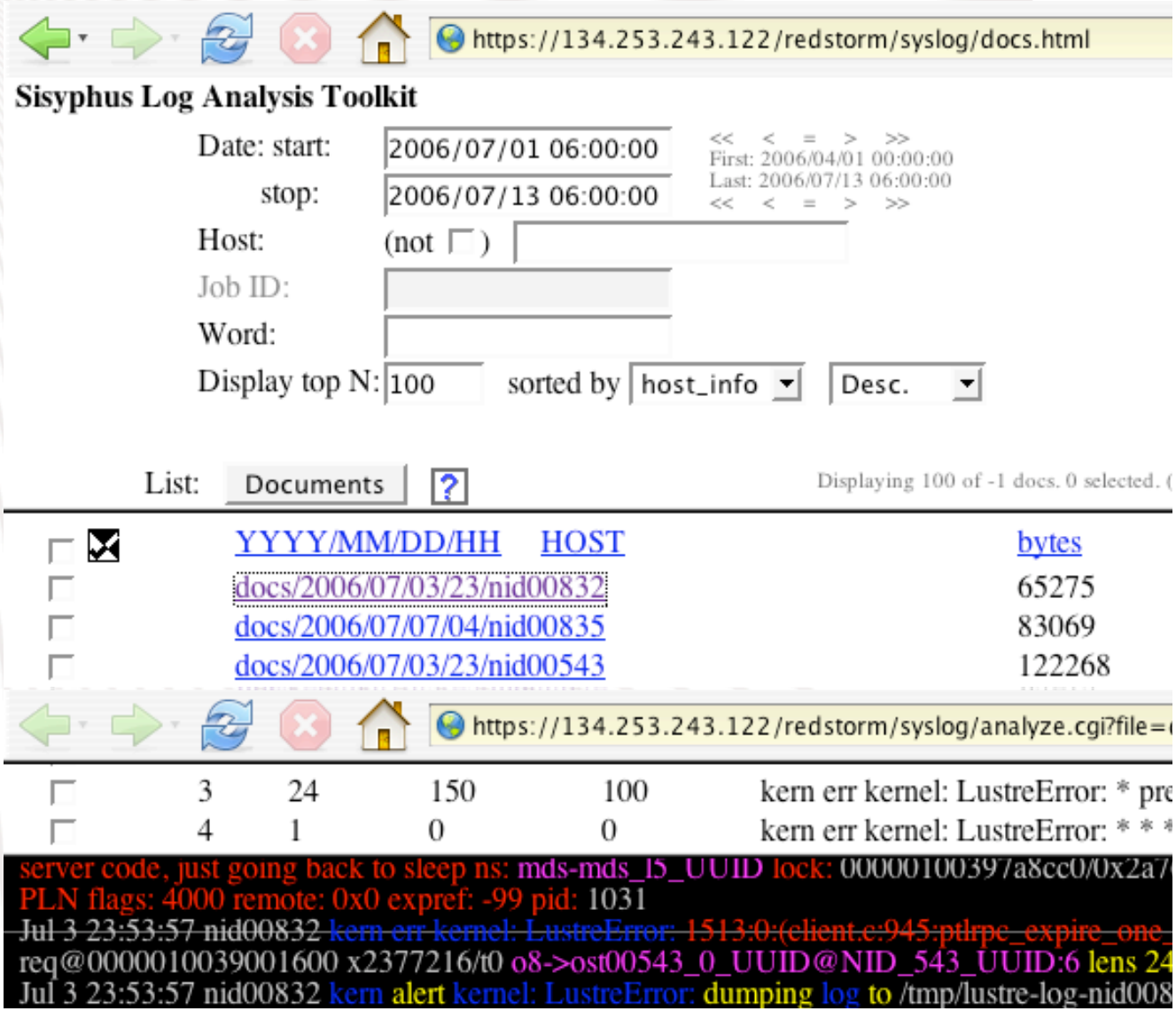
On a 512 Node Linux Cluster at SNL, 60% of faults are detected with an alarm precision rate of at least 80%. This corresponds to an excellent false positive rate of 0.07%.

Results for Red Storm, Blue Gene, Thunderbird, and Liberty are pending…

# Effectiveness

## Bytes

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docs/2006/07/03/23/nid00543 122268
https://134.253.243.122/redstorm/syslog/analyze.cgi?file=
3 24 150 100 kern err kernel: LustreError: * pre
4 1 0 0 kern err kernel: LustreError: * * *
server code, just going back to sleep ns: mds-mds_l5_UUID lock: 00000100397a8cc0/0x2a7
PLN flags: 4000 remote: 0x0 expref: -99 pid: 1031
Jul 3 23:53:57 nid00832 kern err kernel: LustreError: 1513:0:(client.c:945:ptlrpc_expire_one_
req@0000010039001600 x2377216/t0 o8->ost00543_0_UUID@NID_543_UUID:6 lens 24
Jul 3 23:53:57 nid00832 kern alert kernel: LustreError: dumping log to /tmp/lustre-log-nid008