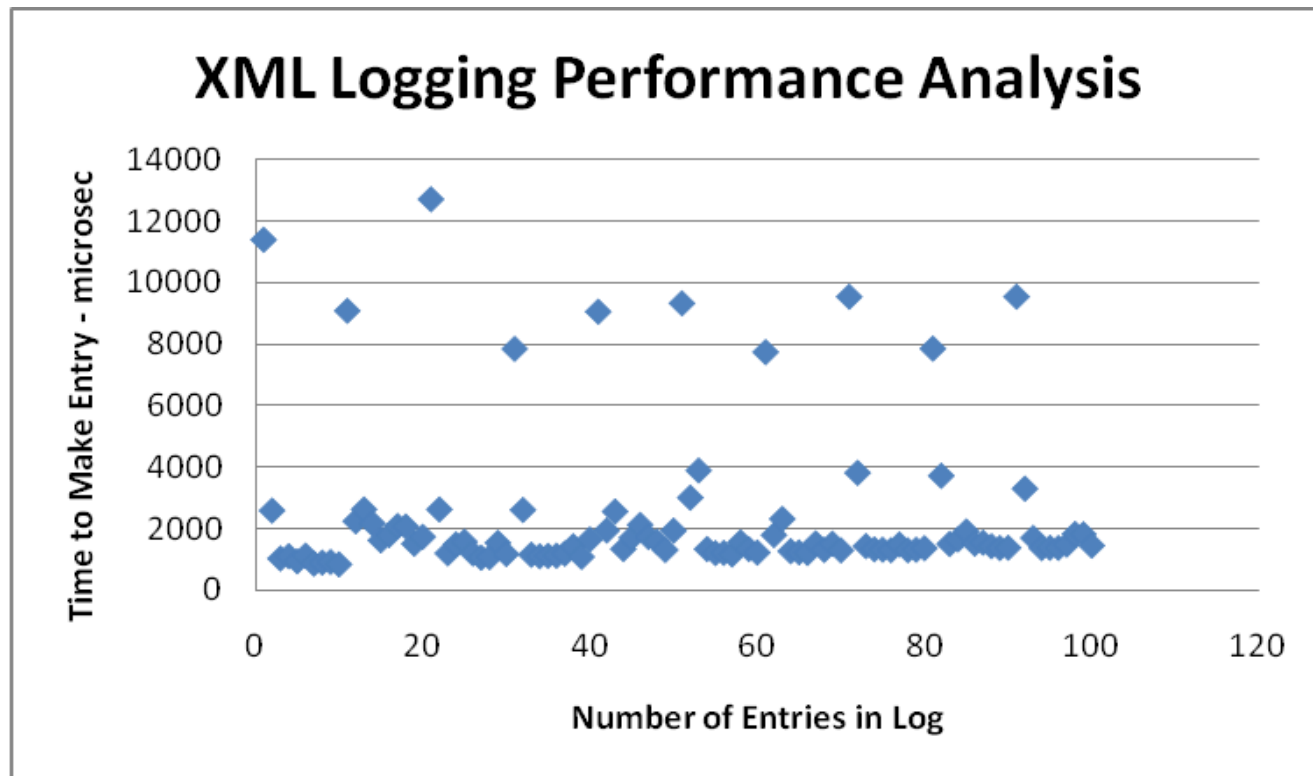


Change Logging Performance

Jim Fawcett, 3/28/2010

100 developers change an average of 5 files today. Assuming they check in between 4:30pm and 5:30pm there are 500 change log entries per hour at peak load time. Do we need to queue the log entries, or will a simpler synchronous logging process be fast enough?



Handouts\CSE681\Presentations\LogPerf.doc

```
C:\Windows\system32\cmd.exe

Performance Analysis of Change Logger Prototype
=====

Change log with 1 entries
time to make log entry = 11620 microsec

Change log with 2 entries
time to make log entry = 12978 microsec

Change log with 3 entries
time to make log entry = 904 microsec

Change log with 4 entries
time to make log entry = 1136 microsec

Change log with 5 entries
time to make log entry = 1056 microsec

Change log with 6 entries
time to make log entry = 873 microsec

Change log with 7 entries
time to make log entry = 863 microsec

Change log with 8 entries
time to make log entry = 889 microsec

Change log with 9 entries
time to make log entry = 895 microsec

Change log with 10 entries
time to make log entry = 897 microsec

<?xml version="1.0" encoding="utf-8" standalone="no"?>
<change_log developer="Jim Fawcett">
  <logItem>
    <time>09:59:21.5309396</time>
    <label>label</label>
    <value>3.1415927</value>
  </logItem>
  <logItem>
    <time>09:59:21.5279394</time>
    <label>label</label>
    <value>3.1415927</value>
  </logItem>
  <logItem>
    <time>09:59:21.5259393</time>
    <label>label</label>
    <value>3.1415927</value>
  </logItem>
  <logItem>
    <time>09:59:21.5229391</time>
```

```
C:\Windows\system32\cmd.exe

Performance Analysis of Change Logger Prototype
=====

Change log with 101 entries
time to make log entry = 9549 microsec

Change log with 102 entries
time to make log entry = 2356 microsec

Change log with 103 entries
time to make log entry = 1580 microsec

Change log with 104 entries
time to make log entry = 1504 microsec

Change log with 105 entries
time to make log entry = 1482 microsec

Change log with 106 entries
time to make log entry = 1517 microsec

Change log with 107 entries
time to make log entry = 1490 microsec

Change log with 108 entries
time to make log entry = 1456 microsec

Change log with 109 entries
time to make log entry = 1442 microsec

Change log with 110 entries
time to make log entry = 1420 microsec

<?xml version="1.0" encoding="utf-8" standalone="no"?>
<change_log developer="Jim Fawcett">
  <logItem>
    <time>10:00:53.9122235</time>
    <label>label</label>
    <value>3.1415927</value>
  </logItem>
  <logItem>
    <time>10:00:53.9082233</time>
    <label>label</label>
    <value>3.1415927</value>
  </logItem>
  <logItem>
    <time>10:00:53.9052231</time>
    <label>label</label>
    <value>3.1415927</value>
  </logItem>
  <logItem>
    <time>10:00:53.9012229</time>
```