1. Results(due to time, the results only show time, no memory, and the the log format is not explicitly called, because other appenders don’t have a getEventStrings method):

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **case id** | **Appender** | **Layout** | **events** | **time(ms)** |
| 1 | MemAppender | VelocityLayout | 1000 | 249 |
| 2 | MemAppender | VelocityLayout | 20000 | 927 |
| 3 | MemAppender | PatternLayout | 1000 | 12 |
| 4 | MemAppender | PatternLayout | 20000 | 1079 |
| 5 | ConsoleAppender | VelocityLayout | 1000 | 4 |
| 6 | ConsoleAppender | VelocityLayout | 20000 | 397 |
| 7 | ConsoleAppender | PatternLayout | 1000 | 3 |
| 8 | ConsoleAppender | PatternLayout | 20000 | 1002 |
| 9 | FileAppender | VelocityLayout | 1000 | 3 |
| 10 | FileAppender | VelocityLayout | 20000 | 415 |
| 11 | FileAppender | PatternLayout | 1000 | 7 |
| 12 | FileAppender | PatternLayout | 20000 | 409 |

1. Analyse
   1. Compare case 1 ~ 4, PatternLayout performance is better than VelocityLayout.
   2. Compare case 2 & 6, 4&8, ConsoleAppender is better than MemAppender.
   3. Compare case 2 & 10, 4&12, FileAppender is better than MemAppender