



Logback

Mattias Wadenstein
System Integrator, NDGF
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- Logback
 - Terminology
 - Configuration
- Logback in dCache
- Logback tips and tricks

- Framework for logging in java
 - dCache is written in Java
 - Replacement for log4j
- Logger
 - A part of the program that creates log lines
 - Hierarchical names
 - org.glite.security.trustmanager.CRLFileTrustManager
 - org.glite.security.util.DirectoryList
 - Event has logger name and severity

- Appender
 - Destination for a line
 - Several different types (class=)
 - Customisable log format
 - And other magic

```
<appender name="pinboard" class="dmg.util.PinboardAppender">  
  <layout>  
    <pattern>[%t] [%X{org.dcache.ndc}] %m</pattern>  
  </layout>  
</appender>
```

- Default: ConsoleAppender
 - dCache redirects this to the usual log files
- Also:
 - File, rotating file (dcache-%YYYYMMDD.log)
 - Network: SMTP, TCP socket
 - Database, syslog, ...
- Appenders have a layout
 - Default: PatternLayout `~= printf++`
`<pattern>ts=%d{yyyy-mm-dd}T%d{HH:mm:ss.SSS} %m`
`%n</pattern>`

- In /opt/d-cache/etc/logback.xml
- Logback does variable substitution
 - \${HOSTNAME} etc
- Order matters!
 - 1. Define appenders
 - 2. Connect loggers to appenders
 - 3. Turbofilter
 - Here be dragons :)
- See manual for if-then-else, include, etc

- Our use case:
 - Pools distributed among 7 sites
 - High RTT on email saying “can you send me”
 - Logback and remote logging
- Client config:

```
<appender name="remote" class="ch.qos.logback.classic.net.SocketAppender">  
  <RemoteHost>dcache-log.ndgf.org</RemoteHost>  
  <Port>6446</Port>  
  <ReconnectionDelay>10000</ReconnectionDelay>  
  <IncludeCallerData>>false</IncludeCallerData>  
</appender>
```

```
java -cp /opt/d-cache/classes/logback/*:/opt/d-cache/classes/lib/*
ch.qos.logback.classic.net.SimpleSocketServer 6446
```

```
/opt/poollog/etc/poollog.xml
```

```
<configuration>
<appender name="out" class="ch.qos.logback.classic.sift.SiftingAppender">
<discriminator>
<Key>cells.domain</Key>
<DefaultValue>unknown</DefaultValue>
</discriminator>
<sift>
<appender name="${cells.domain}" class="ch.qos.logback.core.rolling.RollingFileAppender">
<file>/var/log/poollog/${cells.domain}.log</file>
<append>true</append>
<rollingPolicy class="ch.qos.logback.core.rolling.TimeBasedRollingPolicy">
<!-- weekly rollover -->
<fileNamePattern>/var/log/poollog/${cells.domain}.log.%d{yyyy-ww}.gz</fileNamePattern>
<!-- keep 100 weeks worth of history -->
<maxHistory>100</maxHistory>
</rollingPolicy>
<encoder>
<pattern>%d{dd MMM yyyy HH:mm:ss} \(%X{cells.cell}\) [%X{org.dcache.ndc}] %m%n</pattern>
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</appender>
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</appender>
<root> <appender-ref ref="out"/> </root>
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Questions?