



# Log4j Quick Reference Card

## Priorities

Level	Description
ALL	Output of all messages
TRACE	Detailed Debugging
DEBUG	Debugging (Method xyz called with param abc ...)
INFO	General information (Program started/ended, connected to host foo, calculation took n seconds)
WARN	Unexpected situation
ERROR	Error (Exception caught)
FATAL	Critical error, program stops
OFF	Logging is deactivated

### Usage:

```
log4j.rootLogger=Level, Appender, Appender, ...
log4j.logger.NameOfLogger=Level
```

## Appenders

Name	Writes to
ConsoleAppender	Standard Output (Console)
FileAppender	File
RollingFileAppender	File, creates a new based on file size
DailyRollingFileAppender	File, creates a new based on time
SyslogAppender	UNIX Syslog
NTEventLogAppender	Windows Event-Log
SMTPAppender	E-Mail
net.SocketAppender	Socket (client mode)
net.SocketHubAppender	Socket (server mode)

### Usage:

```
log4j.appender.Appender=org.apache.log4j.Name
```

## Layouts

Name	Description
PatternLayout	Conversion pattern, see top right
SimpleLayout	Level and message
TTCCLayout	= Time, Thread, Category, Context
HTMLayout	HTML Table
XMLLayout	XML

### Usage:

```
log4j.appender.Appender.layout=org.apache.log4j.Name
```

## Pattern Layout

c	category; a.b.c → %c{2} = a.b	m	message
C	fully qualified class name (slow); org.apache.xyz.SomeClass → %C{1} = SomeClass	M	method name (extremely slow)
d	date; %d{HH:mm:ss,SSS}, %d{ABSOLUTE}, %d{DATE}, %d{ISO8601}	n	line separator; \n or \r\n
F	file name (extremely slow)	p	priority
l	location (extremely slow)	r	milliseconds from layout construction
L	line number (extremely slow)	t	thread name
%	percent sign	x	nested diagnostic context of thread
		X	mapped diagnostic context of thread; %X{key}

## Format Modifiers

Modifier	left justify	min. width	max. width	Comment
%20c	false	20	none	Left pad with spaces if content is less than 20 characters long.
%-20c	true	20	none	Right pad with spaces if content is less than 20 characters long.
%.30c	n/a	none	30	Truncated from the beginning if content is longer than 30 characters.
%20.30c	false	20	30	Left pad with spaces if content is shorter than 20 characters. Truncate from the beginning if content is longer than 20 characters.
%-20.30c	true	20	30	Right pad with spaces if content is shorter than 20 characters. Truncate from the beginning if content is longer than 30 characters.

## Example

```
log4j.rootLogger=WARN, stdout, logfile, socket

log4j.appender.stdout=org.apache.log4j.ConsoleAppender
log4j.appender.stdout.layout=org.apache.log4j.PatternLayout
log4j.appender.stdout.layout.ConversionPattern=%-5p [%-4t] %-25.25c %m%n

log4j.appender.logfile=org.apache.log4j.RollingFileAppender
log4j.appender.logfile.File=${java.io.tmpdir}/myapp.log
log4j.appender.logfile.MaxFileSize=512KB
log4j.appender.logfile.MaxBackupIndex=3
log4j.appender.logfile.layout=org.apache.log4j.PatternLayout
log4j.appender.logfile.layout.ConversionPattern=%d %r [%t] %-5p %c %x - %m%n

log4j.appender.socket=org.apache.log4j.net.SocketHubAppender
log4j.appender.socket.port=10005
log4j.appender.socket.locationInfo=true

log4j.logger.com.my.app=DEBUG

# to selectively log into a separate file: Logger.getLogger("MyCategoryName");
log4j.category.MyCategoryName=otherLogFile
```