

File log4j2.properties

Il file **log4j2.properties**, è utilizzato per configurare le modalità di logging in geoweb.

Questa è la **versione 2** di [log4j](#), che è **introdotta a partire dalla versione 4.6.X** del framework.

L'introduzione è stata forzata in seguito alla scoperta di un rilevante bug di sicurezza. info [qui](#). Non sono affette dal bug le versioni 1.x di log4j, precedentemente utilizzate da Geoweb, ma la richiesta di aggiornamento da parte di certi clienti è stata pressante, ed è statao deciso di passare comunque all'ultima versione rilasciata.

Si possono specificare, tra l'altro, i *logging level* selettivamente e su quali file verranno salvati i log.

Per una guida completa fare riferimento a quella ufficiale [qui](#).

Logging Level

Impostando un logging level, si avrà come effetto quello di visualizzare loggati solo i messaggi di pari livello o superiore. Ecco la lista dei logging level, in ordine crescente dal meno al più restrittivo:

- **all** All levels including custom levels.
- **trace** Designates finer-grained informational events than the debug.
- **debug** Designates fine-grained informational events that are most useful to debug an application.
- **info** Designates informational messages that highlight the progress of the application at coarse-grained level.
- **warn** Designates potentially harmful situations.
- **error** Designates error events that might still allow the application to continue running.
- **fatal** Designates very severe error events that will presumably lead the application to abort.
- **off** The highest possible rank and is intended to turn off logging.

Per quanto riguarda in Geoweb, è buona prassi impostare il logging level a *debug* in fase di sviluppo/dispiegamento in ambiente di test/collaudato, ed ad *warn* od *error* in produzione.

Log generati da librerie di terze parti, come *Activti* e *MongoDB* vengono in genere tenuti sempre con logging level più restrittivi, come *error*, a meno di specifiche necessità di debugging.

I log relativi al *GwMailService* sono in genere configurati per essere loggati su un file separato.

Note sulla configurazione log4j2

- Ora si può configurare un lasso di tempo alla fine del quale il file di configurazione viene ricaricato e valutato. **Questo senza più necessità di stoppare il server**. Questo si imposta tramite il parametro, in secondi:

```
monitorInterval=
```

- Dentro i template, in alto, sono state portate delle *property* da cui si può più facilmente settare il log level per le varie componenti:

```
...
#####
# log threshold levels
#####
property.globalLogLevel = debug
property.geowebLogLevel = debug
property.securityLogLevel = info
property.emailLogLevel = debug
property.activitiLogLevel = error
property.mongodbLogLevel = error
property.httpClientLogLevel = info
...
```

- il riferimento a variabili d'ambiente va ora fatto usando il prefisso

```
sys:
```

, per esempio

```
${sys:catalina.home}
```

- le property contenenti

```
appenders=
```

e

```
appenderRefs=
```

sono opzionali e sono obbligatorie solo in caso di nomi con caratteri speciali degli appender. Sono volutamente lasciate per capire più facilmente le correlazioni fra i vari elementi della configurazione

- per ogni **logger** va fatta una riga separata per ogni **appender** che si intende collegare ad esso
- inoltre valgono in generale le seguenti correlazioni determinate dai colori:

```
#####
#####
```

```
# geoweb logger
```

```
#####
#####
```

```
logger.geoweb.name = com.geowebframework
```

```
logger.geoweb.level = ${geowebLogLevel}
```

```
logger.geoweb.additivity = false
```

```
logger.geoweb.appenderRefs = stdout,rolling
```

```
logger.geoweb.appenderRef.stdout.ref = STDOUT
```

```
logger.geoweb.appenderRef.rolling.ref = RollingFile
```

```
#####  
#####
```

```
# appenders
```

```
#####  
#####
```

```
#appenders definition can be optional, but it's useful to undestand properties syntax correlation
```

```
appenders = console,rolling
```

```
#####  
#####
```

```
# STDOUT (Console) appender
```

```
#####  
#####
```

```
appender.console.type = Console
```

```
appender.console.name = STDOUT
```

```
appender.console.layout.type = PatternLayout
```

```
appender.console.layout.pattern = %d [%t] %-5p %c - %m%n
```

```
appender.console.filter.threshold.type = ThresholdFilter
```

```
appender.console.filter.threshold.level = ${globalLogLevel}
```

```
#####  
#####
```

```
# RollingFile (RollingFile) appender
```

```
#####  
#####
```

```
appender.rolling.type = RollingFile
```

```
appender.rolling.name = RollingFile
```

```
appender.rolling.fileName = ${sys:catalina.home}/logs/geoweb_client.log
```

```
#appender.rolling.filePattern = ${sys:catalina.home}/logs/geoweb_client-%d{yyyy-MM-dd}-%i.log
```

```
appender.rolling.filePattern = ${sys:catalina.home}/logs/geoweb_client-%i.log
```

```
appender.rolling.layout.type = PatternLayout

appender.rolling.layout.pattern = %d [%t] %-5p %c - %m%n

appender.rolling.policies.type = Policies

#appender.rolling.policies.time.type = TimeBasedTriggeringPolicy

#appender.rolling.policies.time.interval = 1

#appender.rolling.policies.time.modulate = true

appender.rolling.policies.size.type = SizeBasedTriggeringPolicy

appender.rolling.policies.size.size = 20MB

appender.rolling.strategy.type = DefaultRolloverStrategy

appender.rolling.strategy.max = 10

appender.rolling.strategy.fileIndex = min
```

Template log4j2.properties (Webclient)

Nel caso si voglia usare anche la **TimeBasedTriggeringPolicy**, per far creare un nuovo file ogni giorno, oltre che superati i limiti di size:

1. Elenco numerato decommentare (**togliendo #**) le parti *appender.rolling.policies.time*.
2. nel **filePattern** degli **appender** assicurarsi che ci sia un costrutto **%d{}** (Es: %d{yyyy-MM-dd})

log4j2.properties

```
# documentation here:
# https://logging.apache.org/log4j/2.x/manual/configuration.html

#####
# log threshold levels
#####
property.globalLogLevel = debug
property.geowebLogLevel = debug
property.securityLogLevel = info
property.emailLogLevel = debug
property.activitiLogLevel = error
property.mongodbLogLevel = error
property.httpClientLogLevel = info

#####
# global settings
#####
```

```
name = GwPropertiesConfig
# status
# The level of internal Log4j events that should be logged to the
# console.
# Valid values for this attribute are "off", "trace", "debug", "info",
# "warn", "error", "fatal", and "all".
# Log4j will log details about initialization, rollover and other
# internal actions to the status logger.
# Setting status="trace" is one of the first tools available to you if
# you need to troubleshoot log4j.
# (Alternatively, setting system property log4j2.debug will also print
# internal Log4j2 logging to the console,
# including internal logging that took place before the configuration
# file was found.)
status = info
# dest
# Either "err" for stderr, "out" for stdout, a file path, or a URL.
dest = out
# monitorInterval
# The minimum amount of time, in seconds, that must elapse before the
# file configuration is checked for changes.
monitorInterval=60

filter.threshold.type = ThresholdFilter
filter.threshold.level = ${globalLogLevel}

#####
# root logger
#####
rootLogger.level = ${globalLogLevel}
rootLogger.appenderRefs = stdout,rolling
rootLogger.appenderRef.stdout.ref = STDOUT
rootLogger.appenderRef.rolling.ref = RollingFile

#####
# geoweb logger
#####
logger.geoweb.name = com.geowebframework
logger.geoweb.level = ${geowebLogLevel}
logger.geoweb.additivity = false
logger.geoweb.appenderRefs = stdout,rolling
logger.geoweb.appenderRef.stdout.ref = STDOUT
logger.geoweb.appenderRef.rolling.ref = RollingFile

#####
# security logger
#####
logger.security.name = com.geowebframework.webclient.security
logger.security.level = ${securityLogLevel}
logger.security.additivity = false
logger.security.appenderRefs = stdout,rolling
```

```
logger.security.appenderRef.stdout.ref = STDOUT
logger.security.appenderRef.rolling.ref = RollingFileAccess

#####
# email logger
#####
logger.email.name = com.geowebframework.calendar.service.GwMailService
logger.email.level = ${emailLogLevel}
logger.email.additivity = false
logger.email.appenderRefs = stdout,rolling
logger.email.appenderRef.stdout.ref = STDOUT
logger.email.appenderRef.rolling.ref = RollingFileEmail

#####
# activiti logger
#####
logger.activiti.name = org.activiti
logger.activiti.level = ${activitiLogLevel}
logger.activiti.additivity = false
logger.activiti.appenderRefs = stdout,rolling
logger.activiti.appenderRef.stdout.ref = STDOUT
logger.activiti.appenderRef.rolling.ref = RollingFile

#####
# mongodb logger
#####
logger.mongodb.name = org.mongodb.driver.cluster
logger.mongodb.level = ${mongodbLogLevel}
logger.mongodb.additivity = false
logger.mongodb.appenderRefs = stdout,rolling
logger.mongodb.appenderRef.stdout.ref = STDOUT
logger.mongodb.appenderRef.rolling.ref = RollingFile

#####
# httpclient logger
#####
logger.httpclient.name=org.apache.http
logger.httpclient.level = ${httpClientLogLevel}
logger.httpclient.additivity = false
logger.httpclient.appenderRefs = stdout,rolling
logger.httpclient.appenderRef.stdout.ref = STDOUT
logger.httpclient.appenderRef.rolling.ref = RollingFile

#####
# appenders
#####
#appenders definition can be optional, but it's useful to understand
properties syntax correlation
appenders = console,rolling,rollingEmail,rollingAccess
```

```
#####
# STDOUT (Console) appender
#####
appender.console.type = Console
appender.console.name = STDOUT
appender.console.layout.type = PatternLayout
appender.console.layout.pattern = %d [%t] %-5p %c - %m%n
appender.console.filter.threshold.type = ThresholdFilter
appender.console.filter.threshold.level = ${globalLogLevel}

#####
# RollingFile (RollingFile) appender
#####
appender.rolling.type = RollingFile
appender.rolling.name = RollingFile
appender.rolling.fileName = ${sys:catalina.home}/logs/geoweb_client.log
#appender.rolling.filePattern =
${sys:catalina.home}/logs/geoweb_client-%d{yyyy-MM-dd}-%i.log
appender.rolling.filePattern = ${sys:catalina.home}/logs/geoweb_client-
%i.log
appender.rolling.layout.type = PatternLayout
appender.rolling.layout.pattern = %d [%t] %-5p %c - %m%n
appender.rolling.policies.type = Policies
#appender.rolling.policies.time.type = TimeBasedTriggeringPolicy
#appender.rolling.policies.time.interval = 1
#appender.rolling.policies.time.modulate = true
appender.rolling.policies.size.type = SizeBasedTriggeringPolicy
appender.rolling.policies.size.size = 20MB
appender.rolling.strategy.type = DefaultRolloverStrategy
appender.rolling.strategy.max = 10
appender.rolling.strategy.fileIndex = min

#####
# RollingFileEmail (RollingFile) appender
#####
appender.rollingEmail.type = RollingFile
appender.rollingEmail.name = RollingFileEmail
appender.rollingEmail.fileName = ${sys:catalina.home}/logs/gwMail.log
#appender.rollingEmail.filePattern = ${sys:catalina.home}/logs/gwMail-
%d{yyyy-MM-dd}-%i.log
appender.rollingEmail.filePattern = ${sys:catalina.home}/logs/gwMail-
%i.log
appender.rollingEmail.layout.type = PatternLayout
appender.rollingEmail.layout.pattern = %d [%t] %-5p %c - %m%n
appender.rollingEmail.policies.type = Policies
#appender.rollingEmail.policies.time.type = TimeBasedTriggeringPolicy
#appender.rollingEmail.policies.time.interval = 1
#appender.rollingEmail.policies.time.modulate = true
appender.rollingEmail.policies.size.type = SizeBasedTriggeringPolicy
appender.rollingEmail.policies.size.size = 20MB
appender.rollingEmail.strategy.type = DefaultRolloverStrategy
```

```
appender.rollingEmail.strategy.max = 10
appender.rollingEmail.strategy.fileIndex = min

#####
# RollingFileAccess (RollingFile) appender
#####
appender.rollingAccess.type = RollingFile
appender.rollingAccess.name = RollingFileAccess
appender.rollingAccess.fileName =
${sys:catalina.home}/logs/gwAccess.log
#appender.rollingAccess.filePattern =
${sys:catalina.home}/logs/gwAccess-%d{yyyy-MM-dd}-%i.log
appender.rollingAccess.filePattern =
${sys:catalina.home}/logs/gwAccess-%i.log
appender.rollingAccess.layout.type = PatternLayout
appender.rollingAccess.layout.pattern = %d [%t] %-5p %c - %m%n
appender.rollingAccess.policies.type = Policies
#appender.rollingAccess.policies.time.type = TimeBasedTriggeringPolicy
#appender.rollingAccess.policies.time.interval = 1
#appender.rollingAccess.policies.time.modulate = true
appender.rollingAccess.policies.size.type = SizeBasedTriggeringPolicy
appender.rollingAccess.policies.size.size = 20MB
appender.rollingAccess.strategy.type = DefaultRolloverStrategy
appender.rollingAccess.strategy.max = 10
appender.rollingAccess.strategy.fileIndex = min
```

Template log4j2.properties (Webadmin)

Nel caso si voglia usare anche la **TimeBasedTriggeringPolicy**, per far creare un nuovo file ogni giorno, oltre che superati i limiti di size:

1. Elenco numerato decommentare (**togliendo #**) le parti `appender.rolling.policies.time`.
2. nel **filePattern** degli **appender** assicurarsi che ci sia un costrutto **%d{}** (Es: `%d{yyyy-MM-dd}`)

log4j2.properties

```
# documentation here:
# https://logging.apache.org/log4j/2.x/manual/configuration.html

#####
# log threshold levels
#####
property.globalLogLevel = debug
property.geowebLogLevel = debug
property.activitiLogLevel = error
```

```
#####
# global settings
#####
name = GwPropertiesConfig
# status
# The level of internal Log4j events that should be logged to the
console.
# Valid values for this attribute are "off", "trace", "debug", "info",
"warn", "error", "fatal", and "all".
# Log4j will log details about initialization, rollover and other
internal actions to the status logger.
# Setting status="trace" is one of the first tools available to you if
you need to troubleshoot log4j.
# (Alternatively, setting system property log4j2.debug will also print
internal Log4j2 logging to the console,
# including internal logging that took place before the configuration
file was found.)
status = info
# dest
# Either "err" for stderr, "out" for stdout, a file path, or a URL.
dest = out
# monitorInterval
# The minimum amount of time, in seconds, that must elapse before the
file configuration is checked for changes.
monitorInterval=60

filter.threshold.type = ThresholdFilter
filter.threshold.level = ${globalLogLevel}

#####
# root logger
#####
rootLogger.level = ${globalLogLevel}
rootLogger.appenderRefs = stdout,rolling
rootLogger.appenderRef.stdout.ref = STDOUT
rootLogger.appenderRef.rolling.ref = RollingFile

#####
# geoweb logger
#####
logger.geoweb.name = com.geowebframework
logger.geoweb.level = ${geowebLogLevel}
logger.geoweb.additivity = false
logger.geoweb.appenderRefs = stdout,rolling
logger.geoweb.appenderRef.stdout.ref = STDOUT
logger.geoweb.appenderRef.rolling.ref = RollingFile

#####
# activiti logger
#####
logger.activiti.name = org.activiti
```

```
logger.activiti.level = ${activitiLogLevel}
logger.activiti.additivity = false
logger.activiti.appenderRefs = stdout,rolling
logger.activiti.appenderRef.stdout.ref = STDOUT
logger.activiti.appenderRef.rolling.ref = RollingFile

#####
# appenders
#####
#appenders definition can be optional, but it's useful to understand
properties syntax correlation
appenders = console,rolling

#####
# STDOUT (Console) appender
#####
appender.console.type = Console
appender.console.name = STDOUT
appender.console.layout.type = PatternLayout
appender.console.layout.pattern = %d [%t] %-5p %c - %m%n
appender.console.filter.threshold.type = ThresholdFilter
appender.console.filter.threshold.level = ${globalLogLevel}

#####
# RollingFile (RollingFile) appender
#####
appender.rolling.type = RollingFile
appender.rolling.name = RollingFile
appender.rolling.fileName = ${sys:catalina.home}/logs/geoweb_admin.log
#appender.rolling.filePattern = ${sys:catalina.home}/logs/geoweb_admin-
%d{yyyy-MM-dd}-%i.log
appender.rolling.filePattern = ${sys:catalina.home}/logs/geoweb_admin-
%i.log
appender.rolling.layout.type = PatternLayout
appender.rolling.layout.pattern = %d [%t] %-5p %c - %m%n
appender.rolling.policies.type = Policies
#appender.rolling.policies.time.type = TimeBasedTriggeringPolicy
#appender.rolling.policies.time.interval = 1
#appender.rolling.policies.time.modulate = true
appender.rolling.policies.size.type = SizeBasedTriggeringPolicy
appender.rolling.policies.size.size = 20MB
appender.rolling.strategy.type = DefaultRolloverStrategy
appender.rolling.strategy.max = 10
appender.rolling.strategy.fileIndex = min
```

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