

# Logging FIX configuration

FEJ uses Log4j 2 as a logging framework. Its configuration is stored in the **log4j2.xml** file. For more information about configuration, please refer to [Log4j 2 official documentation](#).

A SecurityPatternLayout is recommended to use with FEJ to hide passwords in the application log file:

## log4j2 xml configuration for password obfuscation

```
<?xml version="1.0" encoding="UTF-8"?>
<Configuration status="INFO">
  <Appenders>
    <Console name="Console" target="SYSTEM_OUT">
      <SecurityPatternLayout pattern="%d{yyyy-MM-dd HH:mm:ss.SSS} [%-5level] [%t] %c{1.} - %msg%n">
        <replace regex = "#554=(.*?)#" replacement="#554=*****#"/>
        <replace regex = "\\| 554=(.*?) \\" replacement="\\| 554=***** \\"/>
        <replace regex = "<Password>(.*?)</Password>" replacement="<Password>*****</Password>"/>
        <replace regex = "\\u0001554=(.*?)\\u0001" replacement = "\\u0001554=*****\\u0001"/>
      </SecurityPatternLayout>
    </Console>
    <File name="fixedgejLog" fileName="./logs/fixedgej.log">
      <SecurityPatternLayout pattern="%d{yyyy-MM-dd HH:mm:ss.SSS} [%-5level] [%t] %c{1.} - %msg%n">
        <replace regex = "#554=(.*?)#" replacement="#554=*****#"/>
        <replace regex = "\\| 554=(.*?) \\" replacement="\\| 554=***** \\"/>
        <replace regex = "<Password>(.*?)</Password>" replacement="<Password>*****</Password>"/>
        <replace regex = "\\u0001554=(.*?)\\u0001" replacement = "\\u0001554=*****\\u0001"/>
      </SecurityPatternLayout>
    </File>
    <File name="adminDebugFile" fileName="./logs/fixedgej-admin.log">
      <SecurityPatternLayout pattern="%d{ISO8601} %-5p (%t) [%c{1}(%M:%L)] %m%n">
        <replace regex = "#554=(.*?)#" replacement="#554=*****#"/>
        <replace regex = "\\| 554=(.*?) \\" replacement="\\| 554=***** \\"/>
        <replace regex = "<Password>(.*?)</Password>" replacement="<Password>*****</Password>"/>
        <replace regex = "\\u0001554=(.*?)\\u0001" replacement = "\\u0001554=*****\\u0001"/>
      </SecurityPatternLayout>
    </File>
  </Appenders>
  <Loggers>
    <Root level="INFO">
      <AppenderRef ref="Console"/>
    </Root>

    <Logger name="com.epam.fixengine" level="INFO" additivity="false">
      <AppenderRef ref="Console"/>
      <AppenderRef ref="fixedgejLog"/>
    </Logger>

    <Logger name="com.epam.fej" level="INFO">
      <AppenderRef ref="fixedgejLog"/>
    </Logger>
    <Logger name="org.springframework" level="INFO"/>
    <Logger name="com.epam.fej.cluster.lbc.service" level="INFO"/>
    <Logger name="com.hazelcast" level="warn"/>
    <Logger name="org.crsh" level="warn"/>
    <Logger name="org.apache.kafka" level="info"/>

    <Logger name="com.epam.fej.monitoring" level="INFO" additivity="false">
      <AppenderRef ref="adminDebugFile"/>
    </Logger>
  </Loggers>
</Configuration>
```