LOG4J - SAMPLE PROGRAM

We have seen how to create a configuration file. This chapter describe how to generate debug messages and log them in a simple text file.

Following is a simple configuration file created for our example. Let us revise it once again:

- The level of the root logger is defined as **DEBUG** and attaches appender named **FILE** to it.

- The appender **FILE** is defined as **org.apache.log4j.FileAppender** and writes to a file named **log.out** located in the **log** directory.

- The layout pattern defined is %m%n, which means the printed logging message will be followed by a newline character.

The contents of **log4j.properties** file are as follows –

```
# Define the root logger with appender file
log = /usr/home/log4j
log4j.rootLogger = DEBUG, FILE

# Define the file appender
log4j.appender.FILE=org.apache.log4j.FileAppender
log4j.appender.FILE.File=${log}/log.out

# Define the layout for file appender
log4j.appender.FILE.layout=org.apache.log4j.PatternLayout
log4j.appender.FILE.layout.conversionPattern=%m%n
```

Using log4j in Java Program

The following Java class is a very simple example that initializes, and then uses, the log4j logging library for Java applications.

```java
import org.apache.log4j.Logger;

import java.io.*;
import java.sql.SQLException;
import java.util.*;

public class log4jExample{

   /* Get actual class name to be printed on */
   static Logger log = Logger.getLogger(log4jExample.class.getName());

   public static void main(String[] args)throws IOException,SQLException{
      log.debug("Hello this is a debug message");
      log.info("Hello this is an info message");
   }
}
```

Compile and Execute

Here are the steps to compile and run the above-mentioned program. Make sure you have set **PATH** and **CLASSPATH** appropriately before proceeding for the compilation and execution.

All the libraries should be available in **CLASSPATH** and your **log4j.properties** file should be available in **PATH**. Follow the steps give below –

- Create log4j.properties as shown above.

- Create log4jExample.java as shown above and compile it.

- Execute log4jExample binary to run the program.

You would get the following result inside **/usr/home/log4j/log.out** file −

```
Hello this is a debug message
Hello this is an info message
```