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# Files to be deprecated

The below implementation needs to deprecated ,as Log4J XML files is not the way forward for logging in spark

|  |  |
| --- | --- |
| **File to deprecated** | **Affected Code** |
| FMLogHelper | FMDailyMerging.scala  FMDataCache.scala  FMDataFilterAndStorage.scala  FMDataPurging.scala  FMHourlyMerging.scala |
| AggregationLogHelper | PM8HourlyAggregations.scala  PMDailyAggregations.scala  PMMonthlyAggregations.scala  PMWeeklyAggregations.scala |
| LogHelper | FMAlarmSyncConsumer.scala  FMClearAlarmPurging.scala  FMDataConsumer.scala  PMDataPurging.scala  PMHourlyAggregations.scala  PMRawDataProcessing.scala |

# Log4j Implementation

The below should be implementation for logs

## Import the Log4J package

**import** org.apache.log4j.Logger

## Define Logger Variable

**var** log: Logger = Logger.getLogger(<String Constant>)

## Use Logger methods to print logs

log.info(<Message>)

log.debug(<Message>)

log.error(<Message>)

… etc

# Log4J Configuration in Standalone mode

In the Standalone mode Spark Log4j Property needs to be defined in standard spark log file

|  |  |
| --- | --- |
| **Log4J File Name** | **File Content** |
| /usr/hdp/2.3.4.0-3485/spark/conf/log4j.properties | # Root logger option  log4j.rootLogger=INFO,,FMConsumer,PMConsumer,DPMservice  log4j.appender.FMConsumer=org.apache.log4j.RollingFileAppender  log4j.appender.FMConsumer.File=/opt/ngemf/fpm/dp/platform/logs/dataingestion/dpmfmconsumer.log  log4j.appender.FMConsumer.layout=org.apache.log4j.PatternLayout  log4j.appender.FMConsumer.MaxFileSize=10MB  log4j.appender.FMConsumer.MaxBackupIndex=10  log4j.appender.FMConsumer.layout.ConversionPattern=%d{yyyy-MM-dd HH:mm:ss} %-5p %c{1}:%L - %m%n  log4j.appender.PMConsumer=org.apache.log4j.RollingFileAppender  log4j.appender.PMConsumer.File=/opt/ngemf/fpm/dp/platform/logs/dataingestion/dpmpmconsumer.log log4j.appender.PMConsumer.layout=org.apache.log4j.PatternLayout  log4j.appender.PMConsumer.MaxFileSize=10MB  log4j.appender.PMConsumer.MaxBackupIndex=10  log4j.appender.PMConsumer.layout.ConversionPattern=%d{yyyy-MM-dd HH:mm:ss} %-5p %c{1}:%L - %m%n  log4j.appender.DPMservice=org.apache.log4j.RollingFileAppender  log4j.appender.DPMservice.File=/opt/ngemf/fpm/dp/platform/logs/dataprocessing/dpmdataaccess.log  log4j.appender.DPMservice.layout=org.apache.log4j.PatternLayout  log4j.appender.DPMservice.MaxFileSize=10MB  log4j.appender.DPMservice.MaxBackupIndex=10  log4j.appender.DPMservice.layout.ConversionPattern=%d{yyyy-MM-dd HH:mm:ss} %-5p %c{1}:%L - %m%n  log4j.logger.com.fujitsu.fnc.fpm.dp.dataingestion.fm=INFO,FMConsumer  log4j.logger.com.fujitsu.fnc.fpm.dp.dataingestion.pm=INFO,PMConsumer  log4j.logger.com.fujitsu.fnc.fpm.dp.dataaccess.sparkservice=INFO,DPMservice  log4j.logger.org.apache.spark=ERROR,file |

# Log4J Configuration in Yarn mode

## Spark Submit Startup Parameters

The log4j Configuration should be passed as startup parameter in spark submit

Example below

spark-submit   --master yarn --deploy-mode cluster  --files /opt/log4j-spark.properties   --conf "spark.driver.extraJavaOptions=-Dlog4j.configuration=file:/opt/log4j-spark.properties"   --conf "spark.executor.extraJavaOptions=-Dlog4j.configuration=file:/opt/log4j-spark.properties" --class …

**This Log4j Property file should be available in ALL Data Nodes . Hence it is preferred to be present in /opt/ngemf/fpm/dp/platform/config/ directory**

## Log4J properties

The logs4j properties should enable the package logs invoked by the application For example

For FM Data Injection, the source code is present in package “com.fujitsu.fnc.fpm.dp.dataingestion.fm”

The Spark & Yarn logs should be disabled as below

*log4j.logger.org.apache.spark=ERROR*

*log4j.logger.org.eclipse.jetty=ERROR*

*log4j.logger.org.apache.hadoop.yarn=ERROR*

## Sample Log4j property

|  |
| --- |
| # Root logger option  log4j.rootLogger=INFO,rolling  # Direct log messages to a log file  log4j.appender.rolling=org.apache.log4j.RollingFileAppender  log4j.appender.rolling.file=${spark.yarn.app.container.log.dir}/dpmfmconsumer.log  log4j.appender.rolling.layout=org.apache.log4j.PatternLayout  log4j.appender.rolling.layout.ConversionPattern=%d{yyyy-MM-dd HH:mm:ss} %-5p %c{1}:%L - %m%n  log4j.appender.rolling.MaxFileSize=10MB  log4j.appender.rolling.MaxBackupIndex=5  log4j.logger.com.fujitsu.fnc.fpm.dp.dataingestion.fm=INFO  log4j.logger.org.apache.spark=ERROR  log4j.logger.org.eclipse.jetty=ERROR  log4j.logger.org.apache.hadoop.yarn=ERROR |