

Version 1.3.0

Oct 17, 2022

FLHK Codeshuttle  
Deploy Guide

# Summary of Changes

|  |  |  |
| --- | --- | --- |
| Change | Version | Owner |
| Initial Version | 0.5 | Philip Smith |
| Revised to correct paths, check in files | 1.0 | Philip Smith |
| Revised the crontab as revised for UAT testing | 1,1 | Philip Smith |
| Revised crontab as using in new UAT | 1.2 | Philip Smith |
| Added 1 initialization script | 1.3 | Philip Smith |
| Made changes for links to SVN for mock prod | 1.4 | Philip Smith |
| Added encryption command | 1.5 | Philip Smith |

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# Purpose

The purpose of this document is to provide detailed description of the steps involved in order to move and FLHK ETL code to Code Shuttle process.

# Required Software

1. Pentaho Kettle 8.3
2. Java
3. Oracle Client

# Software Installation Steps

## 3.1 PENTAHO KETTLE

1. Download Java Version 8 Update 192(build 1.8.0\_192)
2. Download pdi-ce-8.3.0.0-371.zip from <https://sourceforge.net/projects/pentaho/>
3. Download ojdbc8 from  
   <https://www.oracle.com/technetwork/database/application-development/jdbc/downloads/jdbc-ucp-19c-5460552.html>
4. Create folder /u01/app/appadmin/product/pentaho\_8.3
5. Unzip pdi-ce-8.3.0.0-371.zip in the folder /u01/app/appadmin/product/pentaho\_8.3
6. Copy ojdbc8 to /u01/app/appadmin/product/pentaho\_8.3/data-integration/lib
7. Download the files under svn://svn-staging.maximus.com/dev1d/maxdat/trunk/Kettle8/FL/scripts
8. Remove the file /u01/app/appadmin/product/pentaho\_8.3/data-integration/lib/jtds-1.2.5.jar, if it exists
9. Update /u01/app/appadmin/product/pentaho\_8.3/data-integration/spoon.sh

  After the line below:

setPentahoEnv

Add the line below:

\_PENTAHO\_JAVA='/u01/app/appadmin/product/java/jdk1.8.0\_192/bin/java'

Change this at the bottom of the file:

if [ -z ""$PENTAHO\_DI\_JAVA\_OPTIONS"" ]; then

PENTAHO\_DI\_JAVA\_OPTIONS=""-Xms1024m -Xmx2048m -XX:MaxPermSize=256m""

TO:

if [ -z ""$PENTAHO\_DI\_JAVA\_OPTIONS"" ]; then

PENTAHO\_DI\_JAVA\_OPTIONS=""-Xms1024m -Xmx4096m -XX:MaxPermSize=256m""

1. Rename the following files and directories in /u01/app/appadmin/product/pentaho\_8.3/data-integration if exists using the following format:

<Name>.backup.yyyymmdd for example: kettle-lifecycle-listeners.xml.backup.20190129

/u01/app/appadmin/product/pentaho\_8.3/data-integration/classes/kettle-lifecycle-listeners.xml

/u01/app/appadmin/product/pentaho\_8.3/data-integration/classes/kettle-registry-extensions.xml

/u01/app/appadmin/product/pentaho\_8.3/data-integration/classes/log4j.xml

/u01/app/appadmin/product/pentaho\_8.3/data-integration/lib  
pdi-engine-api-8.3.0.0-371.jar  
pdi-osgi-bridge-core-8.3.0.0-371.jar  
pentaho-connections-8.3.0.0-371.jar  
pentaho-osgi-utils-api-8.3.0.0-371.jar  
pentaho-cwm-1.5.4.jar  
org.apache.karaf.jaas.boot-3.0.3.jar  
org.apache.karaf.main-3.0.3.jar  
org.apache.karaf.util-3.0.3.jar  
mondrian-8.3.0.0-371.jar

/u01/app/appadmin/product/pentaho\_8.3/data-integration/plugins/pentaho-big-data-plugin

/u01/app/appadmin/product/pentaho\_8.3/data-integration/plugins/kettle5-log4j-plugin/log4j.xml

/u01/app/appadmin/product/pentaho\_8.3/data-integration/system/karaf

/u01/app/appadmin/product/pentaho\_8.3/data-integration/system/mondrian

/u01/app/appadmin/product/pentaho\_8.3/data-integration/system/osgi

1. Copy below file under /u01/app/appadmin/product/pentaho\_8.3/data-integration/plugins/kettle5-log4j-plugin/ dir and rename file to log4j.xml

svn://svn-staging.maximus.com/dev1d/maxdat/trunk/Kettle8/Config/kettle5-log4j-plugin\_log4j.xml

1. Copy below file under /u01/app/appadmin/product/pentaho\_8.3/data-integration/classes/ directory and rename to log4j.xml

svn://svn-staging.maximus.com/dev1d/maxdat/trunk/Kettle8/Config/classes\_log4j.xml

1. Open the /u01/app/appadmin/product/java/jdk1.8.0\_192/jre/lib/security/java.security file in a text editor.

Change the line and save the file.

securerandom.source=[file:/dev/random](file:///\\dev\random)

to read:

securerandom.source=[file:/dev/urandom](file:///\\dev\urandom)

## 3.2 ETL JOB MANAGEMENT

1. SKIP this step if  "/u01/app/appadmin/product/oracle/instantclient/sqlplus" file exists

Install SQL\*Plus version v12\_2 (Oracle 12c Release 2) Instant Client to /u01/app/appadmin/product/oracle/instantclient/ folder.  
After the installation, make sure "/u01/app/appadmin/product/oracle/instantclient/sqlplus" file exists.

1. SKIP this step if "securerandom.source" is set to "file:/dev/urandom" in /u01/app/appadmin/product/java/jdk1.8.0\_192/jre/lib/security/java.security file.

Make below change in /u01/app/appadmin/product/java/jdk1.8.0\_192/jre/lib/security/java.security file as below:  
COMMENT THE LINE: securerandom.source=[file:/dev/random](file:///\\dev\random)   
ADD A NEW LINE: securerandom.source=[file:/dev/urandom](file:///\\dev\urandom)

# ETL Code Deployment

1. Create the following directories

/u01/maximus/maxdat/FL  
/u01/maximus/maxdat/FL/config  
/u01/maximus/maxdat/FL/config/.kettle  
/u01/maximus/maxdat/FL/scripts

/u01/maximus/maxdat/FL/logs

/u01/maximus/maxdat/FL/deploy

Set chmod u+rwx,g+rxs,o+rx permissions on the directories

1. Download kettle.properties file from

svn://svn-staging.maximus.com/dev1d/maxdat/trunk/Kettle8/FL/config/kettle.properties-mock-PRD

and deploy to:

/u01/maximus/maxdat/FL/config/.kettle

1. Download shared.xml file from:

svn://svn-staging.maximus.com/dev1d/maxdat/trunk/Kettle8/FL/config/shared.xml

and deploy to: /u01/maximus/maxdat/FL/config/.kettle

1. Make a backup of the following file

/u01/app/appadmin/product/pentaho\_8.3/data-integration/simple-jdni/jdbc.properties

1. Download the following file from:

svn://svn-staging.maximus.com/dev1d/maxdat/trunk/Kettle8/FL/config/simple-jndi/jdbc.properties

and deploy to: /u01/app/appadmin/product/pentaho\_8.3/data-integration/simple-jdni

1. Download the following compressed tar file

svn://svn-staging.maximus.com/dev1d/maxdat/trunk/Kettle8/FL/scripts/scripts.tar.gz

Unzip scripts.tar.gz into the /u01/maximus/maxdat/FL/scripts directory

1. Set 755 permissions on ALL shell script files (\*.sh)

in ALL scripts directories and sub-directories

1. Download the following environment files for the appadmin user

svn://svn-staging.maximus.com/dev1d/maxdat/trunk/Kettle8/FL/config/bash\_profile\_PRD.txt

to the appadmin user home path. Logoff and back in to be sure the environment is set properly.

1. Take a backup of the following 3 files below:

/u01/maximus/maxdat/FL/scripts/run\_bpm.sh  
/u01/maximus/maxdat/FL/scripts/run\_bpm\_daily.sh  
/u01/maximus/maxdat/FL/scripts/run\_bpm\_min.sh

1. Execute the following script manually

sh -x /u01/maximus/maxdat/FL/scripts/create\_done\_files.bash

sh -x /u01/maximus/maxdat/FL/scripts/run\_bpm\_daily\_test.sh

the logs produced will note the number of connections which can be connected or cannot.

Go to the following path /u01/maximus/maxdat/FL/config/.kettle and execute

/u01/app/appadmin/product/pentaho\_8.3/data-integration/encr.sh kettle.properties

1. Create the following cron tabs:

# Cron Jobs

# 15,30,45 \* \* \* \* /u01/maximus/maxdat/FL/scripts/run\_bpm\_min.sh | sed "s/^/$(date)/ " > /u01/maximus/maxdat/FL/logs/bpm\_run\_bpm\_min\_`date '+\%Y\%m\%d\_\%H\%M\%S'`.log

# 00 8,17 \* \* \* /u01/maximus/maxdat/FL/scripts/run\_bpm\_daily.sh | sed "s/^/$(date)/ " > /u01/maximus/maxdat/FL/logs/run\_bpm\_daily\_`date '+\%Y\%m\%d\_\%H\%M\%S'`.log

# 00 02 \* \* \* find /u01/maximus/maxdat/FL/logs -mtime +30 -exec rm {} \; 2>&1 >> /u01/maximus/maxdat/FL/logs/removed\_$(date +'%Y%m%d\_%H%M%S\_%3N').log

# Verify Deploy

-- The above date/time should be corresponding to when CRONs were enabled

All logs should be produced with any errors in the named logs

# Data Flow Diagram

FLHK Vida

FLHK Vida Standby

Decision Point database Pre-Prod

Decision Point ETL VOC

FLHK Maxdat Analytical Microstrategy reports

Users enter test transactions

FLHK Vida Standby with the Reports schema

FLHK Vida MAXDAT

MicroStrategy reports

FLHK Vida Batch ETL

Every 20 minutes