MAXDAT INSTALLATION INSTRUCTIONS

EXETER

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**Notes About This Document**

The following conventions will be used throughout this document to try and be as clear as possible. We will start with some general assumptions. If these are incorrect, then we will adjust as needed.

Assumptions:

??

Conventions:

* Any text, which **appears in blue** will represent Unix commands and may be taken as literal, including upper/lower case.
* Any text which **appears in red** is a definition or symbol which has been previously defined in the document.
* Ant text appearing in [ ]’s should be substituted with whatever appropriate filename or parameter or verbiage.
* ***(Italics)*** indicate special notes of interest

**Application Server**

2.1. Directory Structure

The system admin will establish a “base directory” for the MaxDAT application. This will be designated in this document as **[BD]** for all path statements. The base directory may be named anything you wish, but everything after that must match exactly. This directory structure is used throughout the application.

**[BD]**

config

.kettle - This directory will be referred to as your as your “**Kettle Configuration Directory**”. It will hold the properties files and files to control database connections (*yes, this is a hidden directory*).

scripts - This directory will hold all of the shells scripts to run Managed Work

ManageWork - This directory holds all of the kettle files for Managed Work

logs - This is the directory where the application will write process logs containing which step were completed and will contain a message of successful completion or errored completion.

The ownership and permissions on the directory are at the sole discretion of the system administrator depending on how they have determined to run the application. The user running the application must have permissions to read the .kettle and scripts directory contents and have read/write to the logs directory

For our example, the “base directory” [BD] is /u01/maximus/maxdat\_dev/UK. Here is the results from the command: **ls –aR /u01/maximus/maxdat\_dev/UK**

/u01/maximus/maxdat\_dev/UK:

. .. config logs scripts

/u01/maximus/maxdat\_dev/UK/config:

. .. .kettle

/u01/maximus/maxdat\_dev/UK/config/.kettle:

. ..

/u01/maximus/maxdat\_dev/UK/logs:

. ..

/u01/maximus/maxdat\_dev/UK/scripts:

. .. ManageWork

/u01/maximus/maxdat\_dev/UK/scripts/ManageWork:

. ..

2.2. Scripts

Copy the following shell scripts to the “[BD]/scripts” directory from the zip file provided (exeter\_initload\_shell\_scripts.zip):

exeter\_run\_bpm.sh

exeter\_run\_test\_conn.sh

exeter\_set\_env.txt

purge\_logs.sh

run\_kjb.sh

run\_ktr.sh

You will need to convert these files to Unix format using the dos2unix utility on every file (*including exeter\_set\_env.txt*) :

**dos2unix –o** [filename]

If you do not have this utility, you can simply vi the file and remove any “^M” from the end of lines where they occur.

You need to also make all of the shell files executable

**chmod +x \*.sh**

*(Most of these shells run Bash shell by default, but Korn shell can be used. Bourne shell not recommended)*

The exeter\_set\_env.txt file is not a shell – it is a sourced file where you can put all of the environment variables for running MaxDAT. After converting the format on this file, rename it to “.set\_env” in the same directory.

mv exeter\_set\_env.txt .set\_env

You will edit this file in step 2.4.

Copy the following files to your Kettle Configuration Directory (exeter\_initload\_config.zip):

kettle.properties

shared.xml

These files do not need to be converted into Unix format. We will also explain these files in 2.4.

Copy the following files into the [BD]/scripts directory (exeter\_initload\_kettle\_scripts.zip):

bpm\_Init\_check.kjb

Run\_Initialization.kjb

**?? – Not finished yet - TBD**

Copy all of the Managed Work files into the [BD]/scripts/ManageWork directory (exeter\_initload\_mw\_files.zip).

**?? TBD**

2.3. Logs

All MaxDAT logs are named the same as the module that generates them and are appended with a timestamp of when they are created. For example, a Manage Work log file might look like this:

-rw-r--r-- 1 etlad etlad 102580 Jan 24 12:52 ManageWork\_RUNALL\_20140124\_124950.log

You can look at the end of the logs using the “tail” command. The last lines will say whether an error occurred or whether the process ran successfully.

2.4. Properties and Environment settings

The .set\_env file has all the setting to run MaxDAT. If you have additional variables to track, you can add them to this file as well. Make the following edits to .set\_env: (*these edits can be made any time prior to this point using a windows-based editor instead of vi*)

|  |  |
| --- | --- |
| # .set\_env - Exeter, UK  # Do not edit these four SVN\_\* variable …  # and used later to identify deployed code.  # $URL: $  # $Revision: $  # $Date: $  # $Author: $ | These first 7 lines contain SVN variables we use to track code in our Case System. These can be ignored |
| export PENTAHO\_JAVA\_HOME="/u01/app… | Set this to the Java Home for the Pentaho install |
| export ENV\_CODE="dev" | We track applications by development stage. (i.e. dev, uat, prd) This will appear in emails and error messages, but can be optional |
| export STCODE=EX | We track applications by state. (i.e. TX, IL, NY) This may not be applicable to you, but you should set it to some value as it is used to name temporary files in the application. |
| export MAXDAT\_KETTLE\_DIR='/u01/app… | This tells MAXDAT where Kettle is installed and where to find the “kitchen” and “pan” executables. |
| export MAXDAT\_ETL\_PATH="/u01/max… | Set this to the path of the [BD]/scripts dir |
| export MAXDAT\_ETL\_LOGS="/u01/max… | Set this to the path of the [BD]/logs dir |
| export KETTLE\_HOME="/u01/max… | Set this to the path of the [BD]/config dir |
| export KTR\_LOG\_LEVEL='Basic'  export KJB\_LOG\_LEVEL='Detailed' | There are two log levels in Pentaho. The .ktr files are set to “Basic” by default because they produce a lot of data, even at this level. The .kjb files produce little data on “Basic” and are set to “Detailed” for testing and debugging. After the application is stable, these too can be set to “Basic”. |
| export INIT\_OK="$MAXDAT\_ETL\_PATH… | This is a zero (0) sized file that is created when the application starts and is removed when it ends (normally). This is a check file that keeps the process from starting a new instance before the previous instance finishes. |
| export EMAIL='MAXDatSystem@maxim… | This is the email server that will send system generated emails |
| export EMAIL\_MESSAGE="/tmp/${STCODE}.. | This is the beginning stub of email messages generated for error logs |
| export EMAIL\_SUBJECT="Errors With… | This is the default subject for emails generated for error logs |
| export LOG\_LIFE\_DAYS=30 | Number of days logs will stick around before being deleted by the purge script |
| PATH="$KETTLE\_HOME/.kettle/kettle… | This adds the properties files and the Pentaho application into the current path. |

You may need to also set some of the properties in the Kettle Configuration Directory. The .set\_env sets values for Unix – the kettle.properties file sets values for kettle, so you will see duplication for some of the variables that are accessed by both. The following is an explanation of the kettle properties.

|  |  |
| --- | --- |
| # MAXDAT Results Database  DB\_MAXDAT\_NAME=MAXDATUK  DB\_MAXDAT\_HOSTNAME=rcmxapp7d…  DB\_MAXDAT\_PORT=1542  DB\_MAXDAT\_USER=MAXDAT  DB\_MAXDAT\_PASSWORD=MAXDAT | This is one of the database connections for Pentaho. The prefix “DB\_MAXDAT” will be different for each database connection but should be consistent for the whole connection. You will need one set of these for each database you connect to. You should only have to adjust the values, if necessary. |
| INIT\_POOL\_SIZE=50  MAX\_POOL\_SIZE=100 | These are used by Pentaho for performance |
| BPM\_RUN\_CHECK\_FILE=exeter\_run\_init… | Same as the INIT\_OK file in .set\_env |
| EMAIL\_SMTP=corpmail3.maxinc.com  EMAIL\_PORT=25  EMAIL\_DESTINATION=maxdatsystem…  EMAIL\_SENDER=no\_reply@maximus.com  EMAIL\_SUBJECT\_DB='EXETER TEST…  EMAIL\_SUBJECT\_PREV\_RUN=… | These are the default email setting for system generated emails similar to those in .set\_env. |
| CHECK\_DB\_WAIT\_MINUTES=1 | Database connection timeout value |
| ABORT\_PRVIOUS\_RUN='EXETER DEV - …  ABORT\_DB\_CONNECTION='EXETER DEV DB… | Default messages for some of the error logging |
| BPM\_STAGE\_ManageWork=CORP\_ETL\_MAN… | Variable used by Managed work. Do not change |
| ETL\_LOG\_DIRECTORY=/u01/maximus…  ETL\_ERROR\_DIRECTORY=/u01/maximus… | Directory paths which are also in the .set\_env file. |
| STEP\_INST\_DBL\_CHK\_WAIT\_FOR=5 | Internal Kettle setting – see kettle documentation |
| JOB\_STATISTIC\_DIR=/u01/maximus… | This is the directory where the Job Statistic code is located. By default, it’s in the Scripts directory. |

There is also a file in the Kettle Configuration Directory called shared.xml. You should not ever have to change this file. This is an XML file that connects the databases to Pentaho. So, if you should ever change your Kettle properties database prefixes, you would no longer match this file. It is recommended you get our help if you think there is a problem with this file, but for clarity, here is a quick explanation of the connection.

Pentaho:

In Pentaho, a step will show as being connected to “MAXDAT” as the database to write data to.

Shared.XML:

Pentaho then goes to the XML file to look up the “MAXDAT” reference and finds the following:

<name>MAXDAT</name>

<server>${DB\_MAXDAT\_HOSTNAME}</server>

<type>ORACLE</type>

<access>Native</access>

<database>${DB\_MAXDAT\_NAME}</database>

It will then go to the Kettle properties file to look up values to the variables such as $[DB\_MAXDAT\_NAME].

Kettle Properties:

In kettle properties, the variables are given vales such as:

DB\_MAXDAT\_NAME=MAXDATUK

DB\_MAXDAT\_HOSTNAME=rcmxapp7d.maximus.com

So it is important these stay in sync.

MaxDAT Database

3.1.