Autoreduction setup at ISIS

# ActiveMQ

In one install of ActiveMQ the following steps were taken:

1. Ensure http proxy is set.

export http\_proxy=http://wwwcache.rl.ac.uk

1. Downloaded apache-activemq-5.8.0-bin.tar.gz and unpacked (https://activemq.apache.org/activemq-580-release.html)
2. Edit conf/activemq.xml and add the line highlighted in red:

<transportConnectors>

<!-- DOS protection, limit concurrent connections to 1000 and frame size to 100MB -->

<transportConnector name="openwire" uri="tcp://0.0.0.0:61616?maximumConnections=1000&amp;wireformat.maxFrameSize=104857600"/>

<transportConnector name="amqp" uri="amqp://0.0.0.0:5672?maximumConnections=1000&amp;wireformat.maxFrameSize=104857600"/>

<transportConnector name="stomp" uri="stomp://0.0.0.0:61613?maximumConnections=1000&amp;wireformat.maxFrameSize=104857600"/>

</transportConnectors>

For option for starting up ActiveMQ type: bin/activemq console

To check that ActiveMQ is listening type e.g. ‘lsof –i’ or ‘netstat –tulpn’. Note in table outputted, ‘command’ or ‘program name’ for activemq is ‘java’. To check which java is used you may type “ls –l /proc/’PID number’/exe” and to get the working directory of a process “ls –l /proc/’PID number’/cwd”

ActiveMQ should be listening on ports 61616 and 61613

Use a URL like <http://karle.isis.cclrc.ac.uk:8161/admin/index.jsp> to check ActiveMQ, where karle.isis.cclrc.ac.uk is substituted with the name of the computer ActiveMQ is running on. This should be tested from localhost first (due to firewall restrictions). Note the factory username/password is admin/admin.

# Setting up a worker on linux (redhat)

1. Install the libraries located here <https://github.com/mantidproject/autoreduce/tree/master/SNSPostProcessRPM/rpmbuild/libs> . From command line this can be done sudo rpm –i name-of-rpm
2. Download <https://github.com/mantidproject/autoreduce/tree/master/ISISPostProcessRPM/rpmbuild> and follow the steps in the readme file (also visible from this link)
3. Modify the address “brokers” in /etc/autoreduce/post\_process\_consumer.conf to point to ActiveMQ address
4. At present specify the location where the script and reduced data get stored by modifying the instrument\_dir variable the method reduce() of python file /usr/bin/PostProcessAdmin.py
5. Type: sudo python /usr/bin/queueProcessor.py

Logging associated with the Logger used in the python worker script gets stored in /var/log/mantid\_autoreduce\_worker.log (optionally change this in /usr/bin/Configuration.py).

In step 4 if the key python line reads:

instrument\_dir = "/home/ajm64/tmp/" + self.instrument.lower() + "/"

then it is assumed that the reduce.py for a given instrument is located at

reduce\_script\_path = instrument\_dir + "scripts/reduce.py"

and the output will be stored at

reduce\_result\_dir = instrument\_dir + "results/" + self.proposal + "/"

To test that it works copy content of folder <https://github.com/mantidproject/autoreduce/tree/master/ISISPostProcessRPM/rpmbuild/autoreduce-mq/test> into "/home/ajm64/tmp/" (or the name you have changed it to).

Edit the sendMessage.py file and change the message1 data\_file property to point at the testData.txt within the tmp folder you have chosen.

Then in this directory type: python sendMessage.py. A file ./hrpd/results/RB-1310123/result\_hrpd.txt should appear containing just the text string “something”.