NAME

CMDHL7Proxy - Receive HL7 v2.x Delimited messages over MLLP, send them onto a HLLP Listener, receive acknowledgements and pass them back to the original sender

SYNOPSIS

java -jar CMDHL7Proxy_v0.7 [OPTION]...

DESCRIPTION

Listen, on the specified TCP Port, for incoming HL7 v2.x Delimited messages, forward them to a specific MLLP Listener, receiving and forward back HL7 v2.x acknowledgements generated by the target listener. Optionally, with the -t option, impose an upper limit on the number of milliseconds to wait for acknowledgements.

-p PORT, --port=PORT
        TCP Port on which to listen for connections

-h FORWARDHOST, --forwardHost=FORWARDHOST
        TCP Host to which to forward messages

-f FORWARDPORT, --forwardPort=FORWARDPORT
        TCP Port to which to forward messages

-t TIMEOUTMIILIS, --timeout=TIMEOUTMIILIS
        [Optional] number of milliseconds to wait for HL7
        acknowledgement before concluding that it will not come
        and emitting an error message

CMDHL7Proxy supports HL7 v2.1 through 2.6, including 2.3.1 and 2.5.1, as implemented in HAPI 1.0.1 libraries.

CMDHL7Proxy will optionally wait for acknowledgements for a specified number of milliseconds. If this option is not provided the default HAPI 1.0.1 timeout is used.

CMDHL7Proxy can be used to multiplex separate message streams/sessions from several senders into a single message stream/session. This can be useful if the target listener cannot deal with multiple concurrent senders attempting to connect to a single TCP port.

CMDHL7Proxy INFO-level messages. The underlying code uses org.apache.commons.logging mechanism. The logging level can be managed through the logging.proeprties JRE configuraiton file, typically in <JDK_Dir>\jre\lib\logging.properties. Once can override this with "-Djava.util.logging.config.file=logging.properties" on the command line, for example:

C:\jdk1.6.0_20\bin\java -Djava.util.logging.config.file=logging.properties -jar CMDHL7...

There are a number of properties files provided in teh distribution - logging_debug.properties, logging_fine.properties (these two are equivalent),

logging_info.properties, logging_warning.properties and logging.proeprties, which is equivalent to logging_info.properties. debug and fine variants result in no logging being emitted to the console. info emits some logging information to the console. fine and debug emit a lot of informaiton to the conole - most of it of minimal usefulnes. info is probably the most useful logging level for viewing message exchange. warning if the most useful for running the code in "production" mode.

EXAMPLES

java -jar CMDHL7Proxy_v0.7.jar -p 22000 -h localhost -f 22100 -t 50000

Listen on port 22000
Forward to localhost on port 22100
Wait up to 50 seconds for the ACK (-t 50000)

Example output emitted when a message is processed:

29/12/2010 9:30:07 AM au.id.czapski.hl7.CMDHL7Proxy main
INFO: Port: 22000
29/12/2010 9:30:07 AM au.id.czapski.hl7.CMDHL7Proxy main
INFO: Forward to Port: 22100
29/12/2010 9:30:07 AM ca.uhn.log.HapiLogImpl info
INFO: au.id.czapski.hl7.SimpleForwardApplicaiton registered to handle *^* messages
29/12/2010 9:30:07 AM ca.uhn.log.HapiLogImpl info
INFO: SimpleServer running on port 22000
29/12/2010 9:30:19 AM ca.uhn.log.HapiLogImpl info
INFO: Accepted connection from 127.0.0.1
29/12/2010 9:30:20 AM ca.uhn.log.HapiLogImpl info
INFO: Responder got message: MSH|^~\&|SystemA|HosA|SystemX|HosX|2008091012529||ADT^A03|HOSA_1_1293586220113|P|
PID|1||A000010^^^HosA^MR^HosA||Kessel^Abigail||19460101123045|M|||7 South 3rd Circle^^Downham Market^England -
PV1|1|I||I|||GOO^Goodlace^Andrew^^^^^^^^^MAIN|||EMR||||||||||V20080908014345^^^^VISIT|||||||||||||||||||DISH DIS P|disch loc|||||||20080908014345|2008091012529
29/12/2010 9:30:20 AM ca.uhn.log.HapiLogImpl info
PID|1||A000010^^^HosA^MR^HosA||Kessel^Abigail||19460101123045|M|||7 South 3rd Circle^^Downham Market^England -
PV1|1|I||I|||GOO^Goodlace^Andrew^^^^^^^^^MAIN|||EMR||||||||||V20080908014345^^^^VISIT|||||||||||||||||||DISH DIS P|disch loc|||||||20080908014345|2008091012529
29/12/2010 9:30:20 AM ca.uhn.log.HapiLogImpl info
INFO: Instantiating msg of class ca.uhn.hl7v2.model.v231.message.ADT_A03
29/12/2010 9:30:20 AM au.id.czapski.hl7.SimpleForwardApplicaiton processMessage
INFO: ===>>> Forwarding message:
MSH|^~\&|SystemA|HosA|SystemX|HosX|2008091012529||ADT^A03|HOSA_1_1293586220113|P|2.3.1|||AL|NE
EVN|A03|2008091012529|||JavaCAPS6^^^^^^USERS
PID|1||A000010^^^HosA^MR^HosA||Kessel^Abigail||

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19460101123045|M|||7 South 3rd Circle^^Downham
Market^England -
 Norfolk^30828^UK|||||||||A20080908014345
PV1|1
|I||I|||GOO^Goodlace^Andrew^^^^^^^^^MAIN|||EMR|||||||||
|V20080908014345^^^^VISIT|||||||||||||||||||||DISH DIS
P|disch loc|||||||20080908014345|2008091012529


29/12/2010 9:30:20 AM ca.uhn.log.HapiLogImpl info
INFO: Initiator sending message: MSH|^~
\&|SystemA|HosA|SystemX|HosX|2008091012529||ADT^A03
|HOSA_1_129358622011
PID|1||A000010^^^HosA^MR^HosA||Kessel^Abigail||
19460101123045|M|||7 South 3rd Circle^^Downham
Market^England -
PV1|1
|I||I|||GOO^Goodlace^Andrew^^^^^^^^^MAIN|||EMR|||||||||
|V20080908014345^^^^VISIT|||||||||||||||||||||DISH DIS
P|disch loc|||||||20080908014345|2008091012529
29/12/2010 9:30:20 AM ca.uhn.log.HapiLogImpl info
PID|1||A000010^^^HosA^MR^HosA||Kessel^Abigail||
19460101123045|M|||7 South 3rd Circle^^Downham
Market^England -
PV1|1
|I||I|||GOO^Goodlace^Andrew^^^^^^^^^MAIN|||EMR|||||||||
|V20080908014345^^^^VISIT|||||||||||||||||||||DISH DIS
P|disch loc|||||||20080908014345|2008091012529
29/12/2010 9:30:20 AM ca.uhn.log.HapiLogImpl info
MSA|AA|HOSA_1_1293586220113ssage: MSH|^~
\&|SystemX|HosX|SystemA|HosA|20101229093020.284+0800
||ACK|13|P|2.3.1
29/12/2010 9:30:20 AM ca.uhn.log.HapiLogImpl info
MSA|AA|HOSA_1_1293586220113|SystemA|HosA|
20101229093020.284+0800||ACK|13|P|2.3.1
29/12/2010 9:30:20 AM ca.uhn.log.HapiLogImpl info
INFO: Instantiating msg of class
ca.uhn.hl7v2.model.v231.message.ACK
29/12/2010 9:30:20 AM
au.id.czapski.hl7.SimpleForwardApplicaiton
processMessage
INFO: ===>>> Received response:
MSH|^~\&|SystemX|HosX|SystemA|HosA|20101229093020.284+
0800||ACK|13|P|2.3.1
MSA|AA|HOSA_1_1293586220113


29/12/2010 9:30:20 AM ca.uhn.log.HapiLogImpl info
MSA|AA|HOSA_1_1293586220113sage: MSH|^~
\&|SystemX|HosX|SystemA|HosA|20101229093020.284+0800
||ACK|13|P|2.3.1
29/12/2010 9:30:20 AM ca.uhn.log.HapiLogImpl info
MSA|AA|HOSA_1_1293586220113|SystemA|HosA|
20101229093020.284+0800||ACK|13|P|2.3.1
29/12/2010 9:30:20 AM ca.uhn.log.HapiLogImpl info
INFO: End of input stream reached.
29/12/2010 9:30:20 AM ca.uhn.log.HapiLogImpl info
INFO: Closing connection (no more messages available).
```

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KNOWN ISSUES

There is no way to tell CMDHL7Proxy to stop. I run this from a command window and use Control C to stop it.

The code does not validate supposed HL7 v2.x delimited messages for correctness. For example a message with invalid TS (timestamp) data will be happily processed. I deliberately disabled HAPI's validation to allow this.

I never tested this code on non-Windows platforms. Being pure Java I expect it to work on non-Windows platforms all the same.

I never tested this code with JDK other then JDK 1.6.0_20. Since most of the good stuff comes from the HAPI 1.0.1 I expect this code to work on any version of Java which HAPI 1.0.1 supports (last time I looked it was JDK 1.4 and up, though one's experience may vary).

REPORTING BUGS

This is a rough developer tool - I am unlikely to maintain it or have time to fix bugs - besides, most of the good stuff comes from the HAPI distribution and I don't look after bugs in that library (if any - I assume that there are none)

COPYRIGHT

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By all means - copy away (just my code - observe what rules authors of the underlying software felt fit to impose) - but don't expect me to assume responsibility for the use of the code or to come knocking on your door for money if you make a mint using it :-)

This software uses HAPI project libraries (HAPI 1.0.1) (http://hl7api.sourceforge.net/). License for this code is available at http://hl7api.sourceforge.net/license.html. I understand I can use the code for any purpose I see fit.

SEE ALSO

CMDHL7Listener, CMDHL7Sender

HAPI 1.0.1 - http://hl7api.sourceforge.net/