Using IBM MQ dmpmqmsg with option -h to stripremove headers to move a message from Dead Letter Queue or Transmission Queue into a target queue

https://www.ibm.com/support/pages/node/7148314

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+++ Objective +++

The IBM MQ commad dmpmqmsg can be used with option "-h" to strip/remove headers to move a message from:
- the Dead Letter Queue (DLQ, with eye-catcher DLH) to another queue
- the Transmission Queue (XMITQ, with eye-catcher XQH) to another queue

Example to move (DELETE) message from Q1 to Q3, stripping the headers
```
dmpmqmsg -m QM93WIN -I Q1 -o Q3 -h
```

When the queue manager moves a message into a DLQ or XMITQ, a special "header" with more information is added to the message.

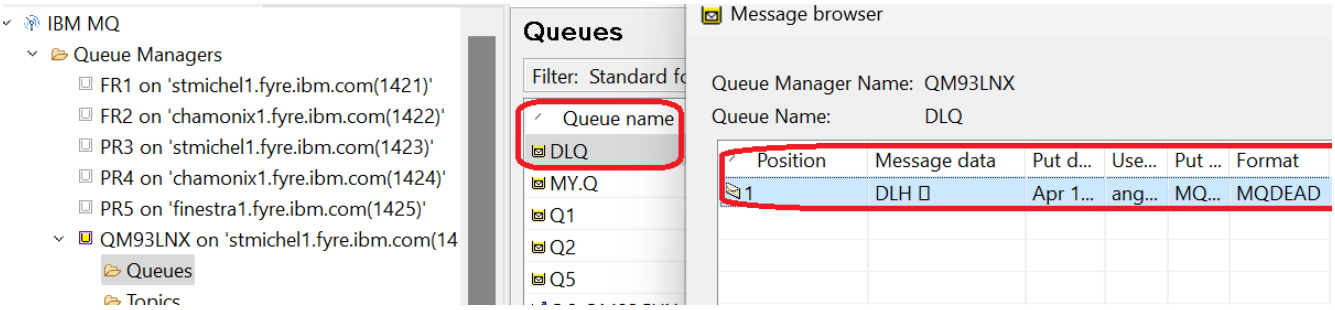
If dmpmqmsg is used to move the message to another queue, the default is to preserve the contents of the message, which means that the message will be place in the target queue WITH THE HEADER! But if the target queue is NOT a DLQ or an XMITQ, then we need to move the message without the headers. That is when the option -h is helpful.

The online manual says:
-h
Strip headers.
Any Dead Letter Queue header (MQDLH) or Transmission Queue header (MQXQH) is removed from the message before the message is written.

Note: the option -h ONLY removes the headers for DLH and XQH. There are other "headers" used in MQ, but these headers are NOT removed by the -h option.

++ Example for a message in Dead Letter Queue

In queue manager QM93LNX, there is 1 message in the Dead Letter Queue "DLQ".



The browsing of that queue reveals that there is a large header (Eyecatcher "DLH") added to the message.
In this example, the payload is only:

Test-Message-3

mqm@stmichel1.fyre.ibm.com: /home/mqm
$ amqsbcg DLQ QM93LNX

```
...
****   Message      ****
 length - 186 of 186 bytes
00000000:  444C 4820 0100 0000 0508 0000 5135 2020          'DLH .........Q5  '
00000010:  2020 2020 2020 2020 2020 2020 2020 2020          '                 '
00000020:  2020 2020 2020 2020 2020 2020 2020 2020          '                 '
00000030:  2020 2020 2020 2020 2020 2020 514D 3933          '              QM93'
00000040:  4C4E 5820 2020 2020 2020 2020 2020 2020          'LNX              '
00000050:  2020 2020 2020 2020 2020 2020 2020 2020          '                 '
00000060:  2020 2020 2020 2020 2020 2020 2202 0000          '              "...'
00000070:  B804 0000 4D51 5354 5220 2020 0600 0000          '....MQSTR    ....'
00000080:  616D 7172 6D70 7061 2020 2020 2020 2020          'amqrmppa         '
00000090:  2020 2020 2020 2020 2020 2020 3230 3234          '              2024'
000000A0:  3034 3135 3138 3535 3539 3438 5465 7374          '041518555948Test'
000000B0:  2D4D 6573 7361 6765 2D33                         '-Message-3       '
```

We can use "dmpmqmsg" to make a copy as-is of this message into a queue Q2.
The option -i (lower case i) only copies a message but does not delete it.

$ dmpmqmsg -m QM93LNX -i DLQ -o Q2

```
IBM MQ Queue Load/Unload Utility
Read    - Files:    0  Messages:1  Bytes:186
Written - Files:    0  Messages:1  Bytes:186
```

Notice that the utility handled 1 message, reading 186 bytes (the XQH is most of the contents) from queue DLQ and writing 186 bytes (including the XQH) into queue Q2.

If we browse Q2, we will see that the large header is still there:

```
C:\> amqsbcg Q2 QM93WIN

length - 186 of 186 bytes
00000000:  444C 4820 0100 0000 0508 0000 5135 2020           'DLH ........Q5  '
…
00000090:  2020 2020 2020 2020 2020 2020 3230 3234           '            2024'
000000A0:  3034 3135 3138 3535 3539 3438 5465 7374           '041518555948Test'
000000B0:  2D4D 6573 7361 6765 2D33                          '-Message-3      '
```

Let's use the option -h to split / remove the header XQH and the option -I (upper case i) to actually move the message to another target queue Q3

```
$ dmpmqmsg -m QM93LNX -I DLQ -o Q3 -h
IBM MQ Queue Load/Unload Utility
Read    - Files:   0  Messages:1  Bytes:186
Written - Files:   0  Messages:1  Bytes:14
```

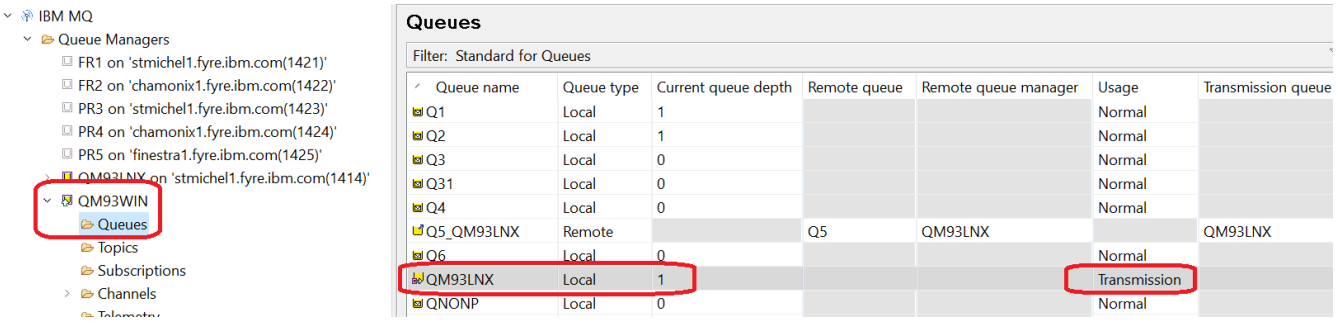
Notice that the utility handled 1 message, reading 186 bytes (the XQH is most of the contents) from queue QM93LNX and writing ONLY 14 bytes (removing XQH) into queue Q3.

If we browse Q3, we will see that the large header is NOT there:

```
$ amqsbcg Q3 QM93LNX
…
****   Message      ****
 length - 14 of 14 bytes
00000000:  5465 7374 2D4D 6573 7361 6765 2D33                'Test-Message-3  '
```

++ Example for a message in a Transmission Queue

In queue manager QM93WIN, there is 1 message in the Transmission Queue "QM93LNX".



The browsing of that queue reveals that there is a large header (Eyecatcher "XQH") added to the message.
In this example, the payload is only:
TEST-MESSAGE-4

C:\> amqsbcg QM93LNX QM93WIN

```
...
****    Message       ****

 length - 442 of 442 bytes

00000000:  5851 4820 0100 0000 5135 2020 2020 2020 'XQH ....Q5      '
00000010:  2020 2020 2020 2020 2020 2020 2020 2020 '                '
00000020:  2020 2020 2020 2020 2020 2020 2020 2020 '                '
00000030:  2020 2020 2020 2020 514D 3933 4C4E 5820 '        QM93LNX '
00000040:  2020 2020 2020 2020 2020 2020 2020 2020 '                '
00000050:  2020 2020 2020 2020 2020 2020 2020 2020 '                '
00000060:  2020 2020 2020 2020 4D44 2020 0100 0000 '        MD  ....'
00000070:  0000 0000 0800 0000 FFFF FFFF 0000 0000 '........    ....'
00000080:  2202 0000 B804 0000 4D51 5354 5220 2020 '".......MQSTR   '
00000090:  0000 0000 0000 0000 414D 5120 514D 3933 '........AMQ QM93'
000000A0:  5749 4E20 2020 2020 69A7 FC65 010F 3740 'WIN     i°ⁿe..7@'
000000B0:  0000 0000 0000 0000 0000 0000 0000 0000 '................'
000000C0:  0000 0000 0000 0000 0000 0000 2020 2020 '............    '
000000D0:  2020 2020 2020 2020 2020 2020 2020 2020 '                '
000000E0:  2020 2020 2020 2020 2020 2020 2020 2020 '                '
000000F0:  2020 2020 2020 2020 2020 2020 514D 3933 '            QM93'
00000100:  5749 4E20 2020 2020 2020 2020 2020 2020 'WIN             '
00000110:  2020 2020 2020 2020 2020 2020 2020 2020 '                '
00000120:  2020 2020 2020 2020 2020 2020 416E 6765 '            Ange'
00000130:  6C52 6976 6572 6120 1601 0501 0000 0048 'lRivera .......H'
00000140:  0366 CD52 7F8B 47B0 7254 FAC2 6484 7300 '.f.R.ïG.rT·.däs.'
00000150:  0000 0000 0000 000C 2020 2020 2020 2020 '........        '
00000160:  2020 2020 2020 2020 2020 2020 2020 2020 '                '
00000170:  2020 2020 2020 2020 0B00 0000 4D51 2045 '        ....MQ E'
00000180:  7870 6C6F 7265 7220 392E 332E 3520 2020 'xplorer 9.3.5   '
00000190:  2020 2020 2020 2020 3230 3234 3034 3135 '        20240415'
000001A0:  3139 3135 3137 3633 2020 2020 5445 5354 '19151763    TEST'
000001B0:  2D4D 4553 5341 4745 2D34               '-MESSAGE-4      '
```

Let's assume that this message is "stuck" and that we need to move it from this queue into another (normal) queue.

We can use "dmpmqmsg" to make a copy as-is of this message into a queue Q2.
The option -i (lower case i) only copies a message but does not delete it.

```
C:\> dmpmqmsg -m QM93WIN -i QM93LNX -o Q2
IBM MQ Queue Load/Unload Utility
Read    - Files:    0  Messages:1  Bytes:442
Written - Files:    0  Messages:1  Bytes:442
```

Notice that the utility handled 1 message, reading 442 bytes (the XQH is most of the contents) from queue QM93LNX and writing 442 bytes (including the XQH) into queue Q2.

If we browse Q2, we will see that the large header is still there:

```
C:\> amqsbcg Q2 QM93WIN

****   Message      ****
 length - 442 of 442 bytes
00000000:  5851 4820 0100 0000 5135 2020 2020 2020 'XQH ....Q5      '
00000010:  2020 2020 2020 2020 2020 2020 2020 2020 '                '
…
00000190:  2020 2020 2020 2020 3230 3234 3034 3135 '        20240415'
000001A0:  3139 3135 3137 3633 2020 2020 5445 5354 '19151763    TEST'
000001B0:  2D4D 4553 5341 4745 2D34                '-MESSAGE-4      '
```

Let's use the option -h to split / remove the header XQH and the option -I (upper case i) to actually move the message to another target queue Q3

```
C:\> dmpmqmsg -m QM93WIN -I QM93LNX -o Q3 -h
IBM MQ Queue Load/Unload Utility
Read    - Files:    0  Messages:1  Bytes:442
Written - Files:    0  Messages:1  Bytes:14
```

Notice that the utility handled 1 message, reading 442 bytes (the XQH is most of the contents) from queue QM93LNX and writing ONLY 14 bytes (removing XQH) into queue Q3.

If we browse Q3, we will see that the large header is NOT there:

```
C:\> amqsbcg Q3 QM93WIN
…
****   Message      ****
 length - 14 of 14 bytes
00000000:  5445 5354 2D4D 4553 5341 4745 2D34      'TEST-MESSAGE-4  '
```

+++ end +++