# 🧪 IBM MQ Load Testing with JMeter + MQMeter (Static Payload)

This guide walks you through setting up and executing an IBM MQ load test using Apache JMeter and the MQMeter plugin, sending a static JSON message repeatedly to a configured MQ queue.

## ✅ What’s Covered

- Installing JMeter

- Setting up MQMeter plugin

- Creating a test plan for FSN process queue

- Sending static payloads to MQ

- Automating and scaling the test using batch scripts

- Generating performance reports

## 📥 1. Install Apache JMeter

1. Download the latest JMeter (tested: 5.6.2) from: https://jmeter.apache.org/download\_jmeter.cgi

2. Extract it to any directory (e.g., C:\devtools\apache-jmeter-5.6.2)

3. Launch the GUI: bin\jmeter.bat

## ⚙️ 2. Setup MQMeter Plugin + IBM MQ Client

Place the following JAR files into jmeter/lib/:

- mqmeter-2.1.1.jar (https://github.com/JoseLuisSR/mqmeter/releases)

- com.ibm.mq.allclient.jar (from IBM MQ distribution or internal repo)

Restart JMeter after adding these JARs.

## ✍️ 3. Create Your Static Test Plan

1. Open JMeter

2. Add a Thread Group under Test Plan:

- Threads: 1

- Loop count: 1

3. Add a Java Request (MQMeter) and set the class:

- Classname: co.signal.mqmeter.MQClientSampler

4. Set the following parameters for FSN process queue:

|  |  |
| --- | --- |
| Name | Value |
| mq\_manager | RS861AC |
| mq\_queue\_put | BDD.GRP.INT\_FSN\_WORKFLOW\_META.QA |
| mq\_hostname | RBSMQ-RS861AC.server.rbsgrp.net |
| mq\_port | 5111 |
| mq\_channel | GRP.VNQ.RS861AC.01 |
| mq\_use\_mqcsp\_authentication | false |
| mq\_encoding\_message | UTF-8 |
| mq\_message | Paste static JSON message below |

5. Paste this in mq\_message (single-line JSON):

{"custId":1064710,"fsnSyntaxErrorsPath":null,"orgnlPaymentFileNm":"BDD\_OP/PAYMENT\_FILES/2025/06/17/INCOMING/NWBKGB2125E.BDD.pain00800108.YDXT0659.PM.XML","grpSts":"ACCP","stsRsnInfRsnCd":"ACCP","stsRsnInfAddtlInf":"File is received and accepted for further process","paymentSrcChannel":"SWIFT","fileDataSeq":305694}

## 🖥 4. Create a Batch Script for Easy Execution

Save this as scripts\run-fxn-test.bat:

@echo off  
set JMETER\_HOME=C:\dev\devtools\apps\apache-jmeter-5.6.2  
set TEST\_PLAN=jmeter\test-plans\fxn-request-test.jmx  
set RESULTS\_DIR=results  
set LOG\_FILE=%RESULTS\_DIR%\fsn-result.jtl  
set REPORT\_DIR=%RESULTS\_DIR%\fsn-report  
  
if not exist %RESULTS\_DIR%\logs mkdir %RESULTS\_DIR%\logs  
if exist %LOG\_FILE% del /f /q %LOG\_FILE%  
if exist %REPORT\_DIR% rmdir /s /q %REPORT\_DIR%  
mkdir %REPORT\_DIR%  
  
%JMETER\_HOME%\bin\jmeter.bat -n -t %TEST\_PLAN% -l %LOG\_FILE% -e -o %REPORT\_DIR%  
  
pause

## 🧪 5. Run and View Results

Run the test by executing the batch file:

scripts\run-fxn-test.bat

Open the HTML report at:

results\fsn-report\index.html

## 📈 6. Scale for Load Testing

In the Thread Group:

- Threads: e.g., 10

- Loop Count: e.g., 10

This will send 100 messages.

Optional: Add a Constant Throughput Timer to control message rate across threads.

## ✅ Tips

- Always test with 1 message before scaling.

- Use View Results Tree to inspect payload formatting.

- Use Git to track `.jmx`, scripts, and versioned test data.