



Integri

a Clear2Pay company

INQ® End-to-End Stress Platform

MasterCard Stress Test Agents

Description

The MasterINQ simulators (Credit, Debit and MEAS) are extremely suited for executing acceptance tests to check the correct implementation of the MasterCard functional specifications.

The easy-to-use simulators offer the user the tools and functionalities that are necessary for:

- **The preparation of test cases.** By selecting a card profile, merchant profile and transaction profile, the user can build his own test cases. Specific settings can be changed in the options form.
- **The execution and monitoring of test cases.** When the test case is built and the message is verified on its correctness with the preview function, the message is ready to be sent to the unit under test (which can be the Acquirer or Issuer).
- **The analysis of the test results.** After the test run, the responses of the unit under test can be analyzed with the powerful log utilities. Tools for searching, filtering, viewing the test results in a certain way offer all the means that are necessary for a profound analysis of the test results.

The MasterINQ Standard Platform is oriented towards testing the functional behavior, giving the possibility to inject all kinds of correct and incorrect requests to the unit under test.

The MasterINQ Professional Platform offers even more functionalities and this via an enriched user interface. Some of the powerful features of this advanced platform are:

- The MasterINQ Professional user can also work in **self test mode**, in which case the tool simulates both Acquirer and Issuer as well as the Network and is not connected to the host system. This reduces the actual test execution time.
- The Professional Edition has an **advanced log management**, allowing adding and selecting database log tables, exporting them, importing them, compare the results between different regression test runs.
- The **populate** feature allows to automate the building of transaction files
- The MasterINQ Professional **Import** feature increases the efficiency of the test preparation phase and allows to use historical data for building transaction files
- The user can modify and create new **transaction profiles**.
- **Response profiles** can be grouped in order to introduce iteration in the acquirer testing process.
- With the **user management** feature, working with multiple users becomes a piece of cake.

When it comes to stress testing the application, this environment must be extended in order to test how the performance of the system is influenced when a lot of transactions need to be processed in parallel in a short time delay.


One of the add-on modules that can be used in an integrated way with the MasterINQ Professional Platform is the Issuer Stress Test Add-In. With this module, an issuer can test the behavior under stress conditions for both the credit as well as debit protocols.

The Stress Test Simulator uses raw data as input messages. The MasterINQ Professional contains the utility to extract the log in the correct stress test file. MasterINQ Professional can thus be used to prepare the test cases and have them then fired thousands of times against the live issuer host.

In a similar way as in the functional simulator, the stress test simulator contains the necessary tools to cover the preparation-, execution- and analysis phase of a stress test run:

- **Flat File Viewer.** The so-called flat files are the input files that are used by the Stress Test Agent (STA) to be sent to the issuer under test. The flat file viewer utility allows the user to navigate through these files with raw messages and to visualize each of the messages contained in the file in a dynamically parsed view.
- **Stress Test Monitor.** The stress test monitor basically corresponds to the layout on the Stress Test Manager (STM) on which for each agent a set of parameters can be configured. Typical parameters are:
 - Maximum number of messages that is sent in one stress test run
 - Timer delay between two message bursts

Out of the box testing



- Number of messages to be sent in one message burst
- **Transaction Log Viewer.** The log files that are during the run created by the STA's are collected afterwards by the STM. The transaction log viewer utility allows the user to analyze in detail each message that was created in these log files. When viewer a specific message, it is dynamically parsed and possible errors are detected in one glance.
- **Statistics.** The following statistics are built-in and can be viewed for each stress test run performed with the simulator:
 - Response time distribution of the issuer host under stress
 - Cumulative response time distribution of the issuer host under stress
 - Response time evolution of the issuer host under stress
 - Transactions per second (TPS) evolution during the message burst.

Highlights

- Load testing up to 100 transactions per second or 1000 connections in parallel
- Load can be distributed over different Stress Test Agents
- Load characteristics can be changed interactively or via scripts
- Logs from different Test Agents can be analyzed individually or combined

Available Test Agents

- MCI Credit Issuer Tester Stress Test Agent (integrated with MasterINQ Professional Platform)
- MCI Credit Acquirer Tester Stress Test Agent
- MCI Debit Issuer Tester Stress Test Agent (integrated with MasterINQ Professional Platform)
- MCI Debit Acquirer Tester Stress Test Agent
- MCI MEAS Issuer Tester Stress Test Agent
- MCI MEAS Acquirer Tester Stress Test Agent

Product family

- Credit and Debit Stress Testing requires the MasterINQ Professional Platform and the Issuer stress test add-on module.
- MEAS Stress Testing requires the INQ Stress Platform and the MEAS Stress Test Agent

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Integri is a wholly owned, autonomous business unit of Clear2Pay, an international financial technology company focused on delivering globally applicable solutions for secure, timely electronic payments. Clear2Pay operates from 13 international offices and currently employs over 400 staff.

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