

**Client**

One of the largest investment banks in the world.

**Goal**

Ensure accuracy of implementation of FX Options and connectivity using FIX protocol

**Business Impact**

Testing of the accuracy of implementation of FX Options on the existing trading platform gave the business the confidence to roll out the new features much faster in the market.

## Testing derivatives on live streaming prices

*Iris tested the implementation of derivatives options and FIX connectivity on a proprietary trading platform.*

**Overview**

One of the world's leading investment banks engaged Iris to test the introduction of derivatives options on their live streaming prices for vanilla and exotic FX options.

The Iris testing team not only tested newly introduced FX Options but also enhanced the test coverage of other forex products such as Spots, Forwards, Swaps and SSP. Using a scenario-based testing approach, the team considered all possible business scenarios to test the FX options trading business.

**The challenge**

Client on-boarded FX Options business on existing FX Trading platform with features like streaming spot and options prices, risk management tools, live P&L along with advanced trading strategies for more than 35 currency crosses.

The trading application was heavily used by the customers to trade FX products (Spots, Forwards, Swaps and SSP), so testing the integration of internal systems (like credit checker, market data, and pricing engine) with streaming adaptors, connectivity with downstream systems and implementation of messaging engines as per FIX protocol for all the FX products including FX Options was critical as any configuration errors could lead to significant losses to the client.

**The solution**

Iris' Testing Center of Excellence with extensive knowledge of the capital markets domain and testing methodologies evaluated the flow of the FX Options implementation and integration with the existing trading platform.

Iris proposed a scenario-based testing approach to effect complete test coverage. Some of the tested business scenarios were:

1. Streaming executable prices for vanilla options & exotic options.
2. Request for Quote (RFQ) from more than 10 customer channels.
3. Option Strategies including Straddle, Strangle, Risk Reversal, Collar & Custom Spread.
4. BackOffice functions including Trade Correction, options exercise & assignment.
5. Integration of FX Options with FX Spots, Forwards, Swaps & SSP in one FX platform.

Re-usable test templates were created to test the FIX Connectivity using Verifix tool for FX options. All the message templates were verified against the specification documents. An automated regression test suite was developed using QTP to allow test iterations with multiple currency pair combinations.

To ensure on-time delivery, all defects and their associated risks were highlighted in daily status reports and bug-scrum calls. A Requirement Traceability matrix was created to track test coverage.

## Tools & technologies

Quality Center, Verifix, FIX Protocol, QTP & JIRA

## Technical highlights

- Created test strategy oriented towards testing of interbank forex quotes, price spreads, markups, and commissions.
- Created automated scripts to execute multiple (spot, forward, swaps, options) trades for more than 35 global currencies.
- Production data replication while retaining data security with the help of data masking and synthetic test data.
- Use of right metrics and reports to ensure timely defect closure.
- End-to-End traceability to ensure functional coverage

## The Iris advantage

**Vision to Reality:** Client's need for end to end testing of FX Options implementation without any impact in existing business was met with thorough testing of all business scenarios along with regression testing.

**Speed to market:** Iris tested and delivered the solution within 6 months from start.

**Execution excellence:** With Iris' rich experience in Forex and Derivative businesses, the testing team was able to execute and document the end-to-end FX Options trade. The Iris team recommended and executed test automation in these complex areas of testing using Verifix and QTP.



## About Iris

Iris ([www.irissoftware.com](http://www.irissoftware.com)) is a professional software services organization providing its customers with high-quality, cost-effective solutions and developing mutually beneficial relationships. Iris does this through comprehensive solution offerings with best-of-breed technologies, rapidly deployable solutions, flexible engagement models and proven methodologies. This allows customers to focus on their core competencies, and concentrate IT resources on projects that directly impact their bottom-line.