

FIX Protocol Testing Accelerator

Industry's First and Only Complete Testing Solution for Equities, FX, Fixed Income, Futures and Options

“Capgemini is one of the top leaders in software testing. The FIX Protocol Testing Accelerator strengthens this leadership. First it deepens the vertical domain of the company by providing a testing framework for capital markets. Second, it provides an integrated tool that not only focuses on test execution but also on definitions, requirements and preparation.”

Dominique Raviart,
Research Director, NelsonHall

Virtually every major stock exchange, investment bank, mutual fund and thousands of smaller investment firms use the Financial Information eXchange (FIX) protocol for electronic trading. For these firms, the reliability, scalability and availability of their FIX engines is essential to providing electronic trading services 24/7 around the globe. Any service degradation or failure can result in loss of substantial revenue with current and future customers.

Our FIX Protocol Testing Accelerator (FITA) provides the industry's first and only complete testing solution for equities, FX, fixed income, futures and options asset classes. This end-to-end solution is the result of collaboration between Capgemini and industry-leading software vendors HP, Aegisoft and Blueprint Systems.



FIX Asset Classes

- Equities
- Fixed Income
- Futures
- Options
- Foreign Exchange

The FIX Protocol Testing Accelerator was developed to provide a ready to use, cost effective test accelerator solution that speeds testing efforts for your FIX Protocol implementation.

FIX Protocol Testing Accelerator

FITA contains a customizable methodology to support common FIX-related testing:

- FIX certification testing
- Performance testing
- RegNMS compliance testing
- System testing

QA Services

Our comprehensive services help you test electronic trading applications and FIX interfaces including:

- Order management system
- Order routing system
- Electronic communication network
- Exchanges
- Client/broker dealers

Services

Built out of our experience of testing FIX implementations for some of the largest trading organizations, FITA covers end-to-end validation services ranging from requirements validation to performance

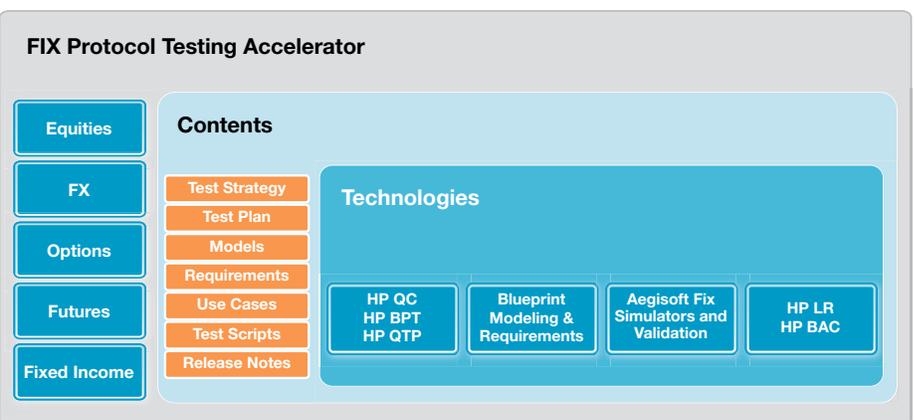
and regression testing. The complete solution leverages proven technology provided from Capgemini partners to automate more than 60% of the existing manual processes involved in FIX validation.

Benefits

The FIX Protocol Testing Accelerator does more than jump start your FIX testing efforts. It helps you:

- *Minimize risk* by using proven, repeatable frameworks to provide compliance to FIX message standards.
- *Establish an intuitional knowledge base* for functional, regression and system integration testing improving application quality.
- *Reduce time to market* with pre-defined test scenarios to shorten the design phase; pre-defined test cases to speed implementation; and a proven methodology which streamlines the execution phase.
- *Manage requirements* using Blueprint Requirement Center which provides complete test coverage and ensures that all test cases are mapped to requirements
- *Support customizations* of test data, FIX testing assets or FIX testing framework to match your specific needs.

FIX Protocol Testing Accelerator Contents



How does the FIX Protocol Testing Accelerator solve industry challenges?

You are...	FITA provides...
Implementing FIX protocol for the first time	A ready-to-test framework that complies with regulations and includes defined QA processes and methodologies to set up a testing workbench for FIX testing.
Upgrading to the latest version of FIX	A framework which can be customized and upgraded to a higher FIX version. Capgemini spends continuous effort to maintain our framework at the latest FIX version. Our FIX domain and testing experts are available to provide the expertise you need when upgrading.
Migrating from an existing protocol to FIX	A head start by utilizing pre-defined and customizable use case models, test scenarios and test cases. FITA includes testing methodologies that speed migration, system and integration testing to ensure connectivity between different legacy trading applications and FIX interfaces.
Integrating a new application with existing FIX interfaces	Different customizable testing methodologies with user guide to help perform system and integration testing for front, middle and back office FIX interfaces. FITA also helps with performance testing to minimize response time.

About Capgemini Testing

Capgemini’s testing team specializes in financial services and includes:

- 5,000 career quality professionals
 - Industry standards TPI, TMAP® and Quality Blueprint
 - Over 10 books published on Quality Management
 - More than 500 professionals certified in technology, business and leadership domains including Certified Software Test Engineer (CSTE), ISTQB and NSE’s Certification in Financial Markets
 - Deep industry domain expertise spanning insurance, banking and capital markets with a focus on wealth management, payments and risk and compliance
 - Highly skilled testing leadership with an average of 10-15 years experience
- Rightshore® network of centers in 32 cities across 15 countries
 - Strong alliance partnerships with leading quality assurance and testing vendors
 - State-of-the-art delivery and training facilities



About HP

HP, the world's largest technology company, simplifies the technology experience for consumers and businesses with a portfolio that spans printing, personal computing, software, services and IT infrastructure.

Our business technology optimization (BTO) products along with our new, complete approach to application lifecycle management (ALM) helps customers achieve better business outcomes.

More information about HP Software & Solutions is available at www.hp.com/go/software.

About Aegisoft

Since 1994, Aegisoft has been innovating in the face of ever changing financial markets. Aegisoft's AthenaTrader is a multi-asset, broker neutral execution management system (EMS) for trading equities, foreign exchange, futures and options. It is a high-performance and configurable platform that has been deployed at large banks, hedge funds and prop trading firms.

In addition to trading solutions, Aegisoft's testing products—Exchange Simulator, Client Simulator and T3—are considered the industry standard for automated, regression, interactive and performance testing of trading systems. Aegisoft's products are used by companies such as Bank of America, Citigroup, Credit Suisse, Deutsche Bank, JP Morgan Chase and many others.

More information is available at www.aegisoft.com.

About Blueprint Systems

Named a "Cool Vendor" in Application Development by leading analyst firm Gartner, and the winner of the Jolt Excellence Award in Design and Modeling, Blueprint aligns business and IT teams by delivering the industry's leading requirements suite designed specifically for the business analyst. Blueprint solutions empower analyst teams to eliminate requirements misunderstanding by capturing, validating, and delivering precise business requirements to local or distributed IT application project teams. Blueprint's product line functions as a collaborative system for the requirements lifecycle, including requirements elicitation, elaboration, validation, and acceptance. Blueprint is a global provider, with presence in the United States, Canada, and Europe.

For more information on Blueprint, visit www.blueprintsys.com.

For more information, contact us at financialservices@capgemini.com



About Capgemini and the Collaborative Business Experience

Capgemini, one of the world's foremost providers of Consulting, Technology and Outsourcing services, has a unique way of working with its clients, called the Collaborative Business Experience.

Backed by over three decades of industry and service experience, the Collaborative Business Experience™ is designed to help our clients achieve better, faster, more sustainable results through seamless access to our network of world-leading technology partners and collaboration-

focused methods and tools. Capgemini utilizes a global delivery model called Rightshore® which aims to offer the right resources in the right location at competitive cost, helping businesses thrive through the power of collaboration.

Capgemini reported 2009 global revenues of EUR 8.4 billion and employs over 90,000 people worldwide.

More information about our services, offices and research is available at www.capgemini.com.