

traderserve
AlgoGuard

Don't let regulation put your algorithms out of business

Don't let your algorithms put you out of business

- ✓ MiFID II algo testing
- ✓ Independent algo stability testing
- ✓ Protect your organisation and staff from Market Abuse Regulation (MAR)
- ✓ Meet Market Integrity Standards in multiple jurisdictions



Meeting MiFID II algorithm testing requirements / protecting your organisation and staff from Market Abuse Regulation (MAR)

Tighter regulation of algorithmic trading is being introduced globally often under the auspices of international bodies. In the EU MiFID II means all trading firms using any form of trading algorithm (which includes most forms of electronic trading) need to invest in a new way of testing their algorithms or face substantial penalties and ceasing algorithmic trading. Senior management will be held responsible for any lack of testing that results in their trading causing or contributing to market disorder.

The requirements

MiFID II

MiFID II (live since 2018) imposes new obligations on investment firms governing non-live testing of algorithms on a vast range of instruments. Firms must now certify that they have tested their trading algos to avoid contributing to market disorder.

These changes represent a paradigm shift in the way that algorithms are tested and in the type of test environments required on which to test them to meet regulatory requirements.

All firms that trade using algorithms are now faced with the problem of meeting these new regulatory mandated requirements, or not trading at all on European trading venues

Trading venues must require that their members “to certify that the algorithms they deploy have been tested to avoid creating or contributing to disorderly trading conditions” (RTS 7, Article 10, 1). Such tests and certification must be made both prior to initial deployment of algorithms and on any “substantial” update (ibid) and a “responsible party designated by senior management of the investment firm shall sign off the initial deployment or substantial update” (RTS 6, Article 5, 2).

The member must also “explain the means used for that testing” (RTS 7, Article 10, 1). Additionally, as part of an annual assessment, the investment firms must retest their algorithms to “ensure that they are capable of withstanding increased order flows or market stresses” (RTS 6, Article 10).

The purpose of testing for disorderly trading conditions is to “recreate real market conditions to ensure the well-functioning of algorithms under changing circumstances” (3.2.33) and must include tests that show that the algorithm “can continue to work effectively in stressed market conditions” (3.1.16).

Additionally, MAR (Market Abuse Regulation live since 2016) also has implications on testing of algorithms.

Market Abuse Regulation (MAR)

MAR includes:

- Fines up to € 5 million on individuals and € 15 million or 15 % of turnover on firms.
- Criminal sanctions of up to 4 year imprisonment will apply under CSMAD (or its UK equivalent).
- Mandated requirements for capture, detect and reporting of trading events.
- Market operators and investment firms that operate a trading venue shall establish and maintain effective arrangements, systems and procedures aimed at preventing and detecting market manipulation (Art 16.1)

Under MAR generally any “behaviour likely to create unfair trading conditions” is considered market abuse. This includes

- Disrupting or delaying the functioning of the trading system of the trading venue
- Entering orders which result in the overloading or destabilisation of the order book
- Creating a false or misleading signal by entering orders to initiate or exacerbate a trend

Non-live testing of algos is mandated under MiFID II rather than MAR but would prevent such algo abuse occurring in the first place and so protect firms and their employees from the penalties under MAR.

FCA Review Paper Feb 2018

"Algorithmic Trading Compliance in Wholesale Markets"

The FCA have drawn algorithmic trading regulations including MiFID II and MAR together in a review paper. This explains in detail what is good practice and poor practice which can prompt investigation and enforcement action. It emphasises the preservation of market integrity (as is also required in other jurisdictions)

Good practice

Firms who develop (or use third party) **dynamic testing environments**, that not only consider how their algorithmic trading strategies perform in a period of market disruption, but also assess whether their strategy further contributes (in combination with other trading activity) to market disruption.

Poor practice

Firms who conduct basic testing of their algorithmic trading strategies which only assess operational efficiency and focus on considerations such as their performance against certain benchmarks or the profit and loss of the strategy. In these cases, firms are unable to demonstrate the potential impact of their algorithmic trading strategies on market integrity."

Further Objectives from FCA review paper

"Firms also need to consider the potential impact their algorithmic trading activity (including the combined impact of multiple algorithmic strategies) may have on the fair and effective operation of financial markets."

"Key objective: To ensure firms appropriately consider the potential impact of their algorithmic trading on market integrity, monitor for potential conduct issues and reduce market abuse risks"

Good practice

Firms where algorithmic trading is fully understood by senior management, who play a key role in providing challenge across the business. For example, where senior management are involved throughout the development and testing process and actively seek to understand the potential market conduct implications."

Protect your organisation

You must act now if you want to ensure that your organisation is:

- Compliant with MIFID II algo testing obligations, enabling continuation of trading activities on European trading venues and avoidance of massive penalties.
- Protected against trading behaviours that would fall foul of MAR

So in addition to pass/fail outputs for contribution to market disorder, needed so that firms can produce disorderly market testing reports to meet the RTS 6 and 7 requirements for trading venues (quickly and efficiently on any significant change in an algorithm), and to supply the relevant regulator with such evidence upon request, it is also important to have comprehensible drill-down analysis to help senior management to understand how the firm's algorithms may contribute to market disorder, affect market integrity or commit market abuse.

AlgoGuard

AlgoGuard emulates a live, linked ecosystem of realistic markets (including RFQ brokers where required) which responds dynamically to the algorithm being tested.

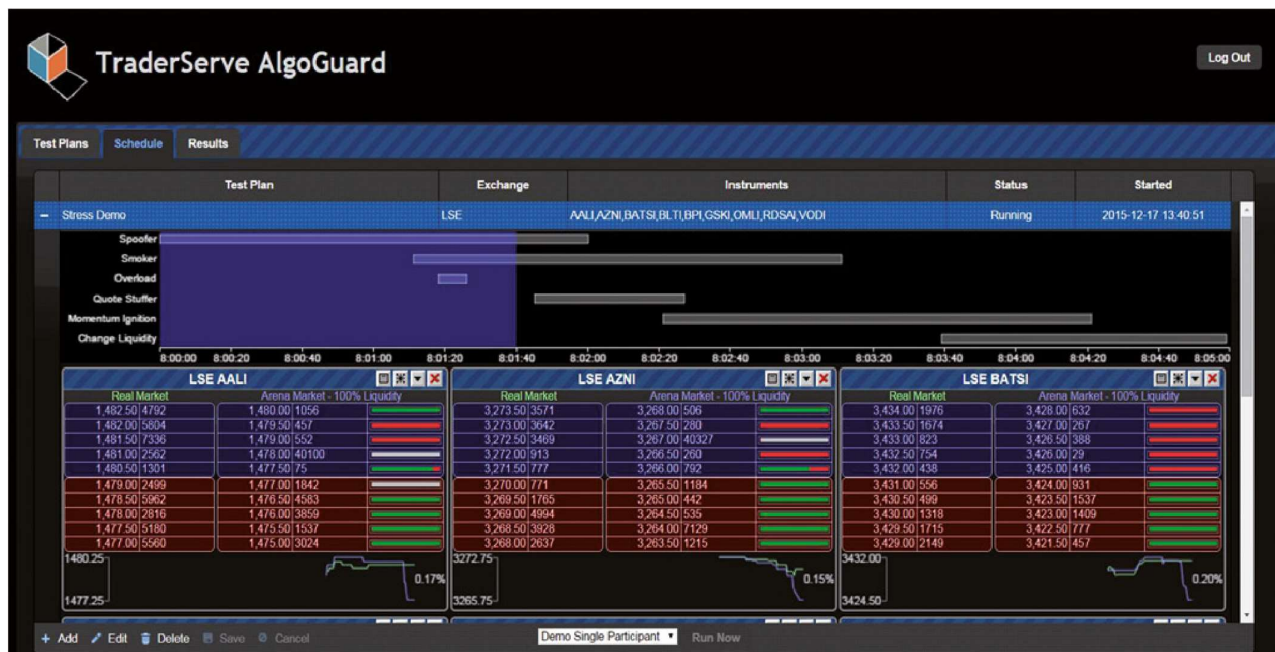
Test strategy and test plans are created by the investment firm or independent testers from AlgoGuard's libraries of customisable components. Test plans suited to the client's algorithms manipulate market conditions to introduce both stressed and disorderly trading using antagonist algorithms and measure the tested algorithm against agreed pass/fail levels of market disorder provocation. AlgoGuard's dashboards, reports and certificates document the testing engagement and can be interfaced directly to a firm's sign-off systems assisting the client to meet their regulatory responsibilities.

AlgoGuard – algo stability testing as a service



Only by properly testing within a realistic set of dynamic linked venues and environment, such as AlgoGuard, which can pass or fail algorithms based upon their contribution to market disorder, can algorithmic traders be sure of being compliant with MiFID II's new non-live testing requirements.

AlgoGuard provides you with a "Pass" or "Fail" algorithm stability test report after running the tests



Comprehensive test reporting gives the evidence firms will need to demonstrate to their trading venues and regulators that they have complied with the new regulations, as well as independent testing to give confidence to their senior management who must stand behind their algorithm certification.

Contact

If you are interested in finding out more about this solution, do not hesitate to send an e-mail to marketing@traderserve.com

www.traderserve.com

About TraderServe

TraderServe specialises in creating novel, practical and high-performing solutions to some of the most challenging problems facing financial markets. For almost 20 years TraderServe has produced pioneering products and consultancy globally for algorithmic trading, best execution and algo compliance. Since 2003 we have assisted legislators and regulators in their development of proportionate and effective algorithmic trading regulation. TraderServe's flagship product AlgoGuard is the first commercially available algorithm stability testing platform which prevents deployment of algorithms which contribute to market disorder or commit market manipulation.