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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)

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

Tighter regulations in MiFID II mean 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 ceasing 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 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 after 3rd January 2018.

Trading venues will require 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) goes live in July 2016 and 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 not mandated UNDER MAR but would prevent such algo abuse occurring in the first place and so **protect firms and their employees from the penalties under MAR**.

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.
- Protected against trading behaviours that would fall foul of MAR

Combining a proven test environment with consultancy expertise

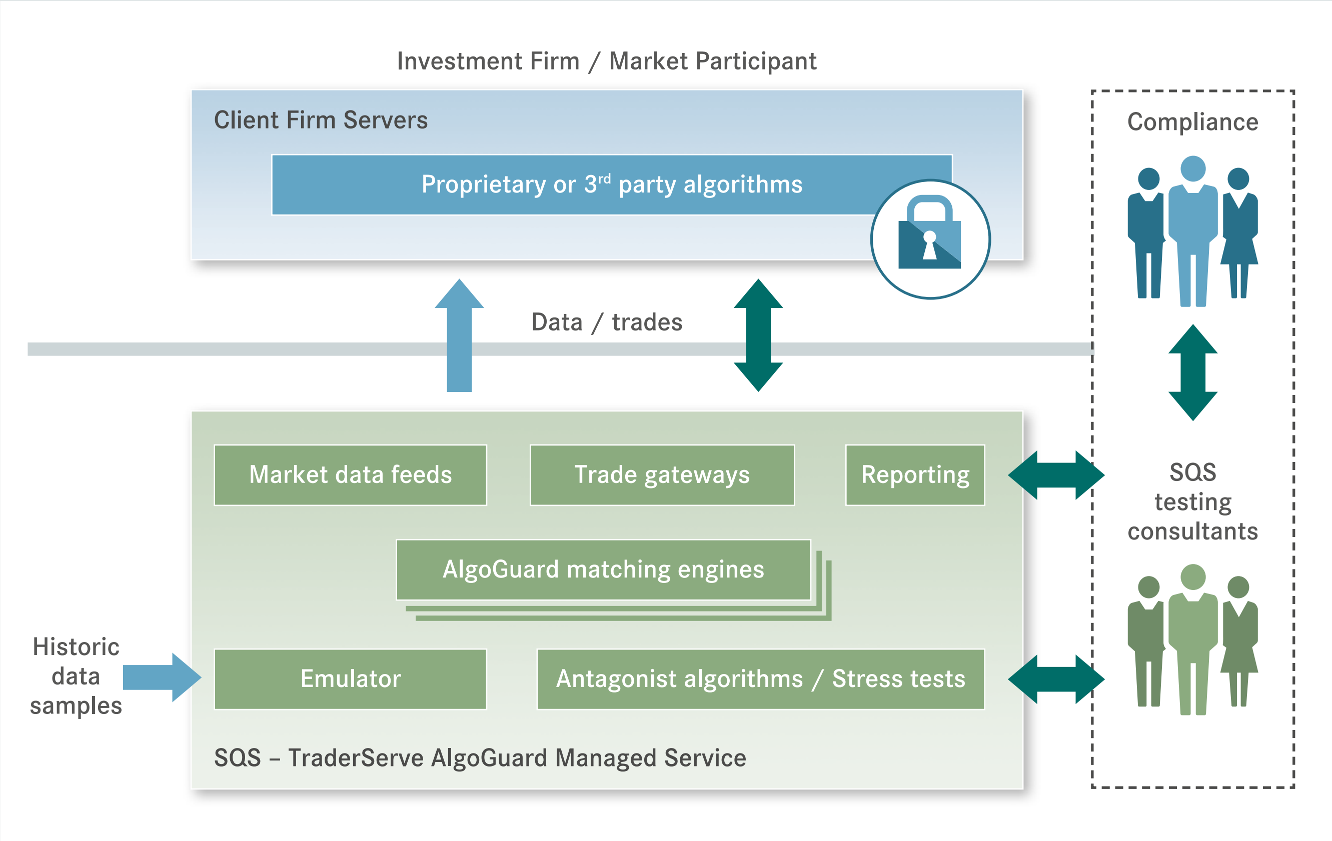
SQS is now working in partnership with TraderServe to provide a managed testing service, combining TraderServe's proven and sophisticated test environment AlgoGuard which emulates real world market micro structures, coupled with the unparalleled testing consultancy expertise of SQS.

This **'testing as a service' solution** ideally suits most firms who want to **independently test their algorithms** without ever revealing their IP.

AlgoGuard emulates a live, realistic market which responds dynamically to the algorithm being tested.

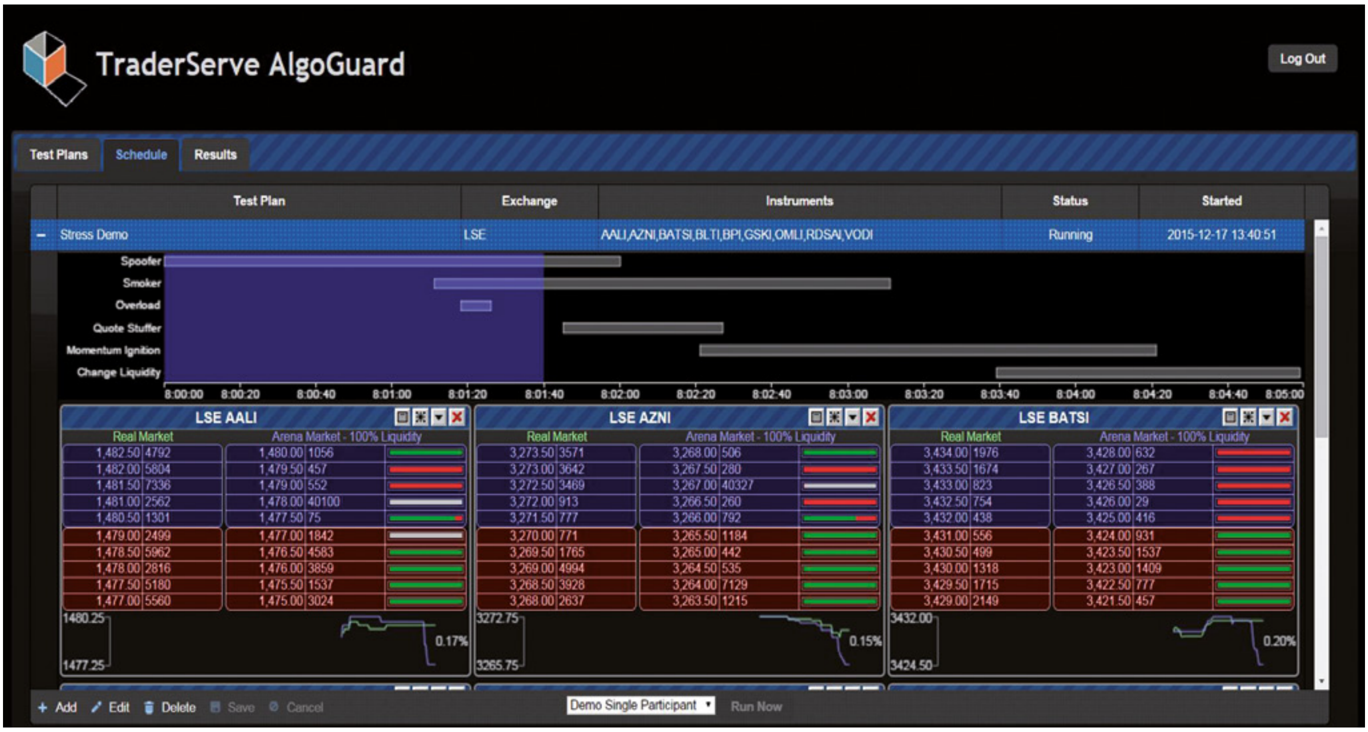
Test strategy and test plans are created by SQS in conjunction with the investment firm. Test plans suited to the client's algorithms manipulate market conditions to introduce both stressed and disorderly trading using antagonist algorithms and measure the tested algorithm against agreed pass/fail levels of market disorder provocation. SQS produce full documentation of the testing engagement to help the client to meet their regulatory responsibilities.

Non-live algorithm stability testing as a service



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

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



SQS's 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 info@sqs.com or visit sqs.com