

TREASURY & CAPITAL MARKETS DETECT

Same-Day OTC Trade Validation Achieved with Machine Learning



Detect helps the validation team detect errors faster by raising red flags on probable errors and unusual activities.”

Financial transactions are captured in multiple systems every second. Sometimes they include unfortunate mistakes.

Small yet frequent, such mistakes generate lengthy investigations. Spectacular “fat finger” errors can lead to decisions being made on the wrong Profit and Loss (P&L) information and the production of incorrect end-of-day reports.

Spotting the Errors

Financial institutions have made enormous efforts to recognize and avoid such errors, yet they struggle to prevent them from happening. Neither pre-coded controls used in Straight-Through Processing (STP) nor human validation have proven fit for purpose. And regulatory confirmation timelines are proving ever so difficult to meet.

In addition to the operational risk created by these errors, various regulatory requirements compel institutions to revisit their current operational processes as T+1 trade validation is no longer a viable option. The Fundamental Review of the Trading Book (FRTB) requires the production of daily risk reports, including the day’s trading activity. The European Market Infrastructure Regulation (EMIR) and the Dodd-Frank Act both require trade confirmation to happen at T+1 or T+2 upon execution.

More Oversight and Control

Machine Learning (ML) is the science of getting computers to act without being explicitly programmed. As opposed to hard-coded business rules which try to anticipate every possible scenario, ML leverages past transactions to produce rules on its own, evolving over time to follow moving trading patterns.

Finastra's ML solution helps financial institution spot anomalies and unusual trading activity. Detect leverages ML to deliver more oversight and control. The solution behaves as a smart personal assistant to the validation team and helps with the tedious process of error detection.

Detect raises red flags on probable errors and unusual activities. In a manual workflow, the solution gives a priority order for the validation team while it catches more exceptions than existing business rules in an STP workflow. The solution is designed to work in financial environments where a vast quantity of structured data is available and users present a consistent behavior from which trading patterns can be deduced.

Accelerate Trade Validations, Reduce Exceptions and Drive Efficiency

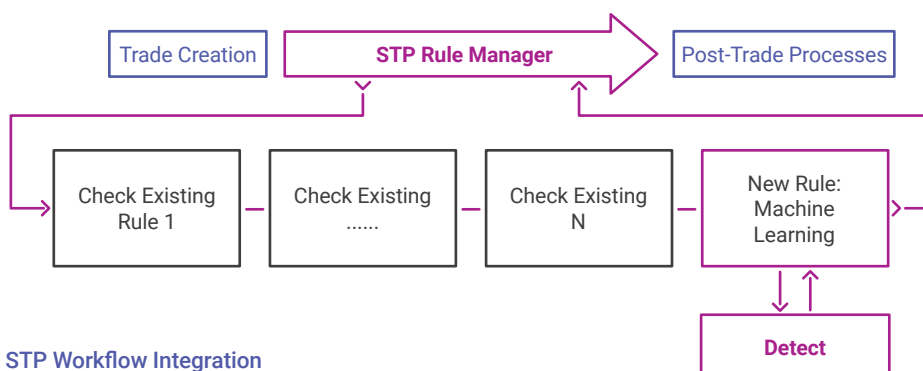
Detect has been developed on a mix of open source algorithms and proprietary developments. The solution combines random forest supervised algorithms to catch usual mistakes and unsupervised algorithms to spot fat finger errors.

Detect has analytics capabilities to produce reports which help identify the number of errors that happen throughout the organization, where, and how long it takes them to be corrected. To do so, the solution reviews the history of transactions to produce analytics on errors that answer these questions. STP workflow integration.

Designed to catch errors that today's controls let through, Detect produces detailed reports to identify ways to streamline processes. Leveraging our FusionFabric technology, the solution integrates seamlessly with core trade capture and validation systems to deliver full flexibility, scalability, and openness.

Trade date	Trade id	Instrument name	Instrument id	Alert level	Alert category	Alert details
2017-03-03 00:00	385658896	TRG Accor 35bp 2017	95037939	High	Anomaly	Anomaly on Deal size
2017-03-02 00:00	385658876	TRG Accor 35bp 2017	95037939	Valid		
2017-03-01 00:00	385658876	TRG Accor 35bp 2017	95037939	Valid		
2017-03-01 00:00	385658864	TRG BNP 8bp 2017	95037937	Valid		
2017-02-28 00:00	385658877	TRG Accor 35bp 2017	95037939	High	Anomaly	Anomaly on Payment leg
2016-04-22 00:00	370386950	DRM_SWAP_AutoCal_Ariva	93590132	Low	Error	Error on Operator: Rate/Spread pay leg
2016-03-31 00:00	384458897	Corp_CLA_ARRANGEMENT_FEE_ORNAMENT	90046433	High	Anomaly	Anomaly on Price
2016-03-30 00:00	380719497	BNP_CLOVER_TRG_30/03/2016	94975981	High	Anomaly	Anomaly on Rate/Spread pay leg
2016-03-29 00:00	381714642	Corp_TRG_BPL_DURATION_APR18	94997713	High	Anomaly	Anomaly on Frequency pay leg: adjustment for receive leg: Error
2016-03-24 00:00	384737437	Swap_AutoCal_Phoenix_Japan_Fx_Leverage	94807918	High	Error	Anomaly on SwapTYPE: Type receive leg: Currency receive leg: Rate
2016-03-24 00:00	384643339	TRG SG Elevance Plus N7	94946439	High	Anomaly	Anomaly on Underlying receive leg
2016-03-22 00:00	384501049	TRG 7 names SG 22/06/2016 240M	94917750	Valid		
2016-03-21 00:00	384403913	Swap_Opex_Patrimonio 3	95752112	High	Anomaly	Anomaly on Rate calculation type pay leg: Type receive leg: Amount
2016-03-18 00:00	384038979	TRG Relais Montevideo NEW 9	94883881	Low	Error	Error on Rate/Spread receive leg: Rate/Spread pay leg: Operator
2016-03-18 00:00	384078615	TRG ECUA PEA NEW 15	94883210	Low	Error	Error on Rate/Spread receive leg: Rate/Spread pay leg: Operator

STP Workflow report



About Finastra

Finastra unlocks the potential of people and businesses in finance, creating a platform for open innovation. Formed in 2017 by the combination of Misys and D+H, we provide the broadest portfolio of financial services software in the world today – spanning retail banking, transaction banking, lending, and treasury and capital markets. Our solutions enable customers to deploy mission critical technology on premises or in the cloud. Our scale and geographical reach means that we can serve customers effectively, regardless of their size or geographic location – from global financial institutions, to community banks and credit unions. Through our open, secure and reliable solutions, customers are empowered to accelerate growth, optimize cost, mitigate risk and continually evolve to meet the changing needs of their customers. 48 of the world's top 50 banks use Finastra technology. Please visit finastra.com

Finastra and the Finastra 'ribbon' mark are trademarks of the Finastra group companies.
© 2017 Finastra. All rights reserved.

Corporate Headquarters

One Kingdom Street
Paddington
London W2 6BL
United Kingdom
T +44 20 3320 5000

