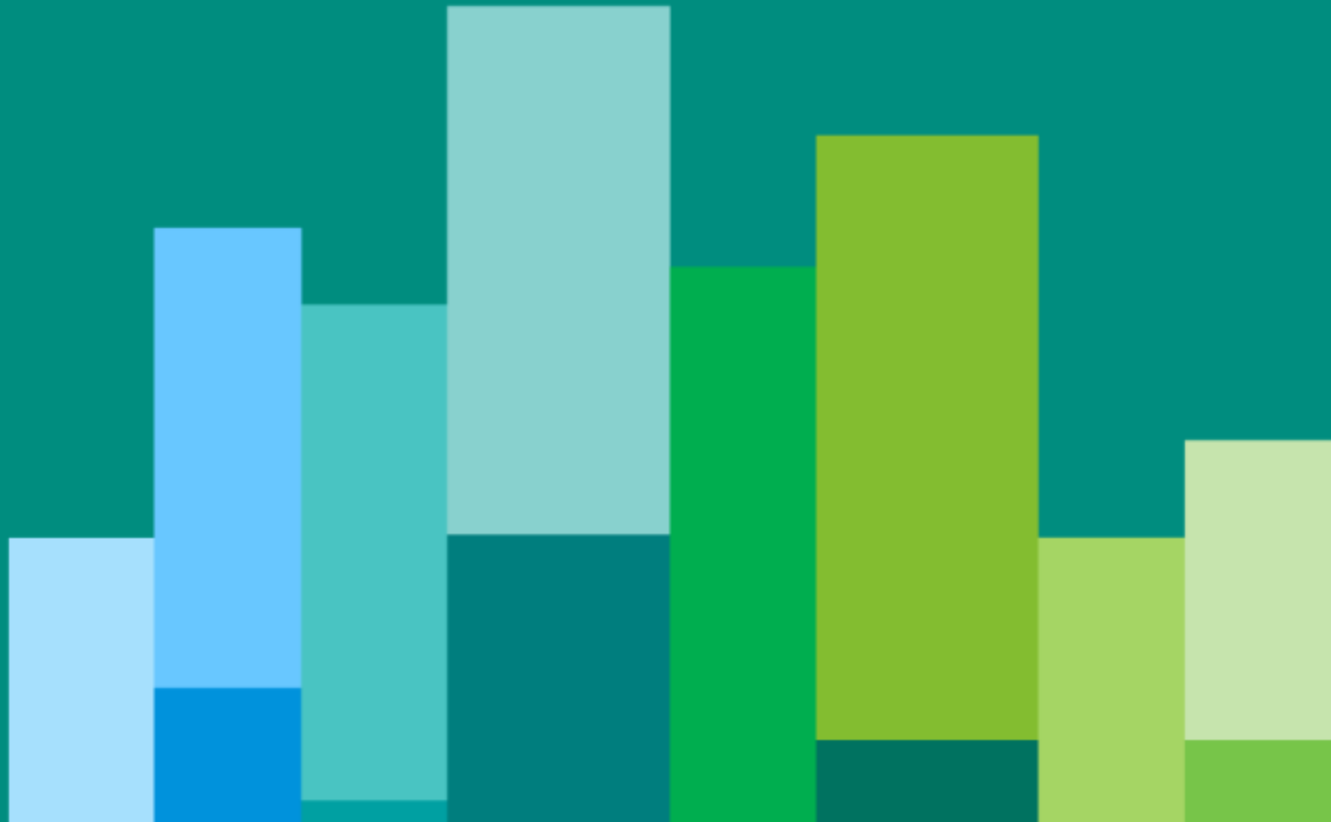


EURONEXT RISKGUARD SERVICE FOR DERIVATIVES MARKETS

February 2019



GENERAL OVERVIEW OF THE SERVICE

- . MiFID II compliant
 - . From standard regulatory requirements
 - . Including DEA and Sponsored Access
-

Real-time monitoring service integrated within the core of the Matching Engine

Designed to cover all Euronext Financial Derivatives, Commodities and Cash asset classes

Aimed to provide Risk Managers at General Clearing Members and Euronext Trading Member firms with a service facilitating their management of their customers' or trading firm's risk exposure

Extension to more advanced risk analytics features

All order messages are checked whatever a control has been set or not by a Risk Manager

- . FIX 5.0 API
- . User Interface available over the Internet



RISKGUARD ENTITLEMENTS

GCM

- To risk monitor the trading activity of their NCMs
- Apply to all users of the NCM (per MNE)
- Scope of instruments: all the subscriptions that are part of the clearing agreement between the GCM and the NCM

NCM

- To risk monitor the trading activity of their firm and clients
- Controls can be set for the entire firm (per MNE) or one to N ITMs
- Scope of instruments: all the markets the firm is entitled to trade



DERIVATIVES RISK CONTROLS AND MAIN FEATURES



Kill Switch

'Suspend' command to allow a GCM to pull orders and stop a NCM trading activity. Also available to NCMs & ICMs



Order Size Limit

Set a Max Order Quantity for Buy and / or Sell orders for a member or group of traders at a contract level



Contract Restrictions

Prevent order submission in a specific contract when a trader has no permission to trade in a financial instrument



Daily Position Management

Provide GCMs and Trading Members the ability to monitor their clients' or their own positions on Euronext by setting a limit against a Daily Maximum Exposure Position
Email alerts



Direct Electronic Access

All risk controls available for Direct Electronic Access and Sponsored Clients

** Risk Limits can be set, amended or disabled at any time from session open to market close*

NCM = Non-Clearing Member; GCM = General Clearing Member; ICM = Individual Clearing Member

THE 'KILL SWITCH' FACILITY



KILL SWITCH

- **Suspend** command aimed at stopping the trading activity of a risk monitored entity and prevent it from submitting any further orders while still being logged
- Apply to all contracts linked to the entity's MNE(s)
 - ✓ *The risk monitored entity is given a 'Suspended' status on UTP*
 - ✓ *All open orders including GTCs and quotes of the entity are pulled*
 - ✓ *Impacted users of the entity receive relevant pull notifications indicating the reason for rejection - Despite they are not logged off, they are unable to submit orders in the relevant markets*
- A 'Suspend' remains in place until the Risk Manager clearly re-authorise order entry of the risk monitored entity by sending an **Unsuspend** command
 - ✓ *The Risk Managed entity is given a 'Unsuspected' status on UTP*
 - ✓ *Impacted users of the entity are notified through their trading interface*
 - ✓ *They can restart submitting orders in the relevant markets*

CONTROL THE MAXIMUM ORDER VOLUME



ORDER SIZE LIMIT

Maximum Order Quantity for Buy and / or Sell outright orders

Apply to new orders, order revisions with the exception to Delta neutrals, EFPs, Wholesale trades

Expressed in number of lots per outright contract
(min value = 1)
Apply at contract or trading subscription level

By default, no OSL is set

- 'Blue Month Factor'
- 'Strategy Factor'

ICS: each leg quantity is validated against the corresponding limit set at the contract level

ITMs can be subject to a limit defined by both the GCM's and the Trading Firm's Risk Managers

Orders rejected based on the most restrictive limit



PREVENT TRADING IN A CONTRACT



CONTRACT RESTRICTIONS

- **'Block'** command aimed at preventing a risk monitored entity from submitting orders in a specific contract when the Risk Manager is *'aware that a trader does not have permission to trade a particular financial instrument'*
- Apply at contract level
 - ✓ Option to pull active orders ('Day only' or 'All')
 - ✓ Impacted users are not logged off and can trade in all other contracts
 - ✓ Order submissions are rejected and the impacted user notified by a relevant message
- 'Block' control remains persistent until the Risk Manager **'Unblock'** the risk monitored entity
- Multiple block feature at the ExchangeCode level available
- By default, no Block control is set for the risk monitored entity

MANAGE THE DAILY EXPOSURE



DAILY POSITION MANAGEMENT

- The '**Maximum Exposure**' provides Risk Managers the ability to manage their clients' or firm's daily exposure on Euronext markets

Daily Maximum Exposure Position (MEP) Limit

Expressed in number of lots on a per contract basis

Can be set at the same levels as MaxOrdQty

The MEP is calculated for Long and Short positions but the MEP Limit applies both to MEP Long and MEP Short

ITMs can be subject to a limit defined by both the GCM's and the Trading Firm's Risk Managers

MEP Long & MEP Short calculations include:

- An aggregation of Buy / Sell outright Open Orders across all expiries
- An aggregation of Buy / Sell outright Executed Orders across all expiries
- A contribution of strategy orders

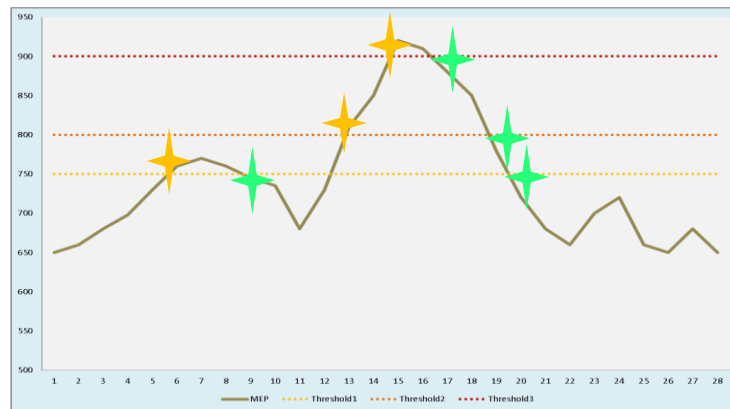
MANAGE THE DAILY EXPOSURE



DAILY POSITION MANAGEMENT

Risk Managers can manage the exposure of their customers, firm or traders based on each individual risk profile by defining up to 3 Exposure threshold levels and alerts thus preventing the monitored entity to breach the MEP Limit

Decision is left to the Risk Manager in terms of action applying to each threshold as well as MEP Limit breach action



Alerts are automatically generated when a threshold is being breached or cleared

Threshold actions only apply to the MEP side i.e. Long or Short that breaches the threshold

At MEP Limit breach, order submission is blocked on both sides

- ✓ No order message in the impacted contract(s) is permitted
- ✓ No automatic global cancellation by default - Global cancellations is **optional**, left at the Risk Manager's discretion when setting the MEP
- ✓ Trading will automatically be permitted once the MEP Limit has been adjusted above the previous value

ADDITIONAL FEATURES



Direct Electric Access

. Trading Members' Risk Managers can create **groups of ITMs** through the User Interface to fine tune the setup of risk controls for their firm or clients

. Limits will be set at the group level, and will be independent from the limits set at the firm level

. *Sponsored Access (TBC)*

A **Sponsored Client** will be defined as a Euronext member's client, identified via a **SA ClientID** and permitted to trade via dedicated member's ITMs

. **Sponsoring members** will be able to set risk controls for Sponsored Clients

. Limits will be set a Sponsored Client level



Email Alerts

Risk Managers have the ability to define a list of email addresses to which RiskGuard alerts would be sent

Option is given to select the risk controls for which emails will be generated:

- ✓ *Kill Switch*
- ✓ *Contract Restrictions*
- ✓ *MEP Thresholds & MEP Limit*



Add. Features (TBC)

- . Audit Trail
- . Permissioning
- . Wholesale risk controls



ONBOARDING PROCEDURE

1

- Risk Manager **Service Agreement** to be signed by Clearing Members and Euronext Trading Members in order to be granted access to Euronext RiskGuard

2

- Clearing Members and Euronext Trading Members are required to sign a **'Statement of Authority'** allowing the Risk Managers to use the Euronext RiskGuard service on all markets where they are authorised to trade

3

- All firms are provided with a specific Risk Member Mnemonic (MNE) – unique for all Euronext markets
- Existing Euronext members are also given a specific MNE for Risk Management in order to segregate their trading from clearing activities

4

- A mandatory conformance is required for Firms prior to using the Euronext RiskGuard Service in production

For further information, please contact your Relationship Manager at ccc@euronext.com

Thank you

- For more information, visit the Euronext RiskGuard page at <https://www.euronext.com/en/trading-services/pre-trade-risk-management>





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