



MoVE

Model Validation Engine

CC&G Risk Policy Team



April 2021

MoVE in a nutshell

A web-based platform to identify and manage risk exposures across different asset classes

Smart risk management environment

Risk managers can integrate a wide set of developed models into an easily configurable tool, which enables autonomous access to DB (no IT support needed)

Robust collateral analytics

The tool is complemented with in-built reliable risk models for CC&G's clearing services, developed according to best practices and including both margin simulations and a suite of VaR models

Flexible architecture

All functionalities can be run via a flexible and customizable user interface

Tailored solutions

The platform can be tailored to client's needs to effectively implement and utilize at best all functionalities, thanks to our analytical and industry expertise



Risk Modelling Functionalities

Portfolio VaR

Includes a vast suite of certified VaR models for multiple asset classes

- Historical VaR / Expected Shortfall
- Parametric VaR
- Monte Carlo VaR

Network analysis

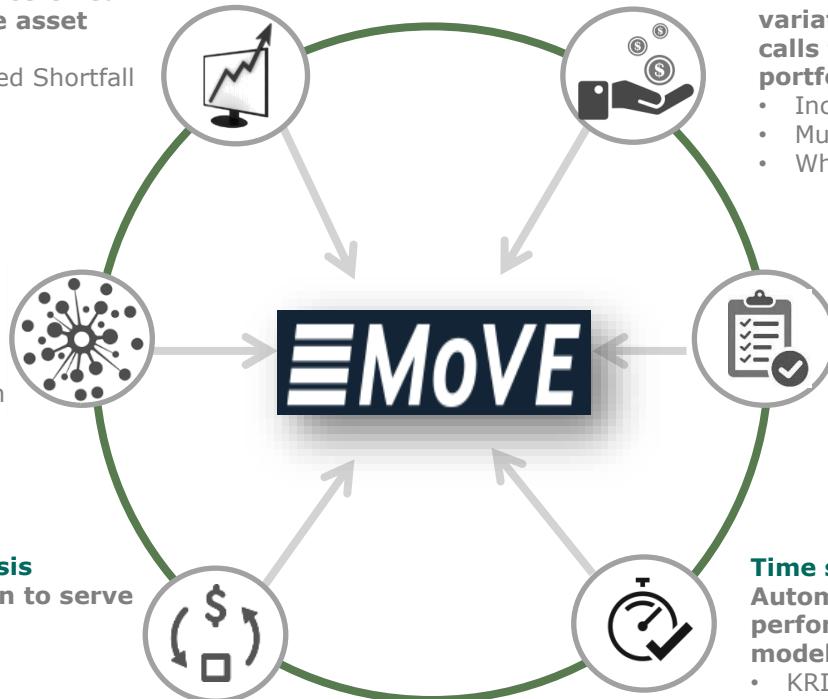
Models wide data sets using network representation theory

- Network construction
- Network effects valuation

Portfolio attribution analysis

Identifies sources of return to serve as strategic risk tool

- Return attribution
- Performance attribution



CC&G margin simulator

Allows to replicate initial, variation and intraday margin calls for actual and simulated portfolios

- Incremental margin
- Multiple asset classes
- What-if analysis

Model validation

Enables a quantitative validation through automated checks

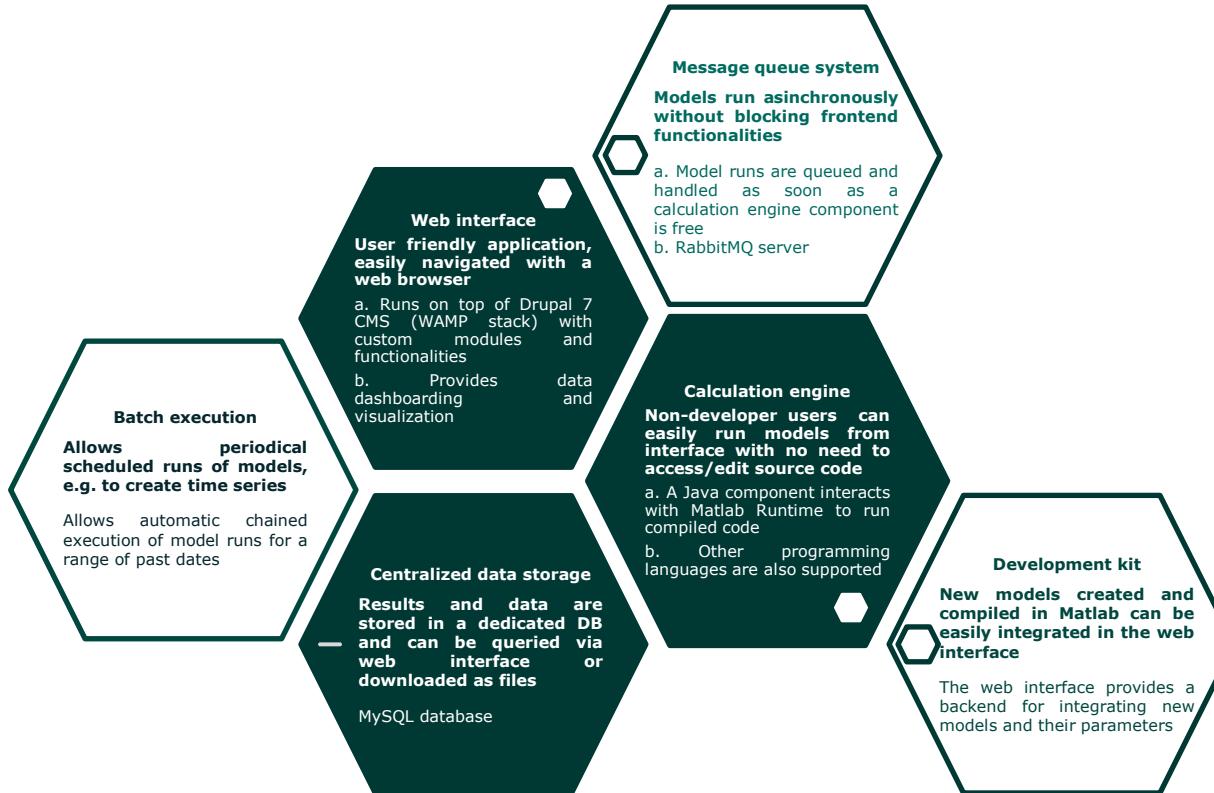
- Stress test, back test, sensitivity test
- Performance analysis
- Input data quality (freshness, gap, swing analysis)
- Regulatory compliance check

Time series comparison

Automated data storage allows performance analysis between different models over extended time horizons

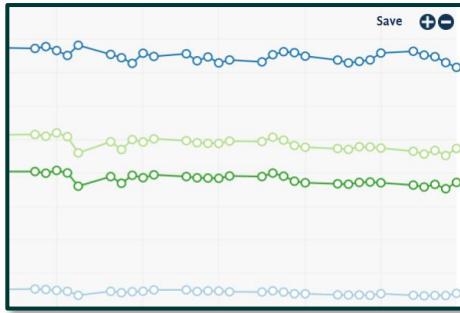
- KRI and KPIs
- Anomaly detection

Technical Overview



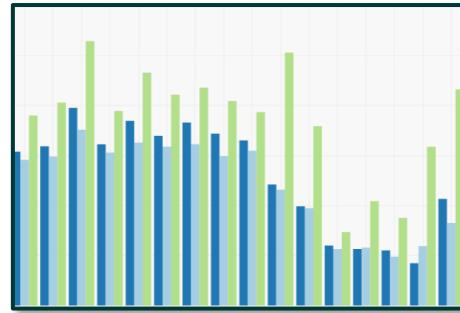
Reporting

Graphics examples

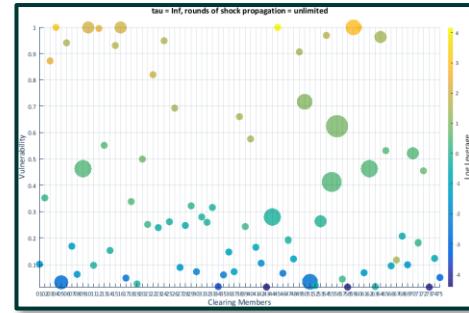
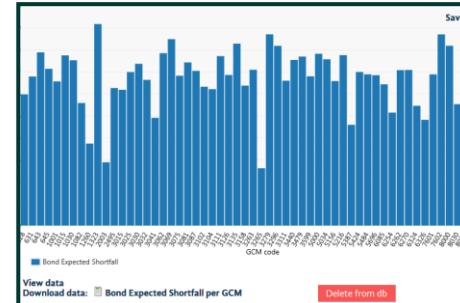


Online table view

GCM	NOM	ACCT	SUBACCT	STL.GID	VALUE
GCM1	NOM1	C	*OMN	NET	3,574,398.95 €
GCM1	NOM1	F	*OMN	NET	17,299,54.08 €
GCM2	NOM2	C	*OMN	MTA	4,846,849.88 €
GCM2	NOM2	C	*OMN	NET	823,922.67 €
GCM2	NOM3	F	*OMN	MTA	83,829.50 €
GCM2	NOM4	F	*OMN	NET	682,968.10 €
GCM3	NOM5	F	*OMN	MTA	25,019,913.04 €
GCM3	NOM6	C	*OMN	MTA	11,197,705.29 €
GCM4	NOM7	F	*OMN	MTA	509.94 €
GCM4	NOM8	C	*OMN	MTA	14,025.18 €
GCM4	NOM9	F	*OMN	MTA	5,017,000.94 €



Export to Excel



Database access view

A user interface for database access. It includes tabs for 'Detailed Margins', 'Margins per GCM', and 'Margin intervals'. The 'Detailed Margins' tab is active. It contains fields for 'Analysis date' (set to 05/03/2018), 'Asset class' (Fixed income), 'Model' (Bond Montecarlo), 'Batch' (Any), 'Run' (Any), and 'User' (admin). Below these are fields for 'Value' (Is less than 100000), 'GCM' (9000), 'HP' (3), 'LP' (1263), 'CL %' (99.8), and an 'Apply' button.



CC&G

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About CC&G

- CC&G is ENX Italian-based provider of risk management, open access clearing and CCP services to 12 markets, including Borsa Italiana's markets, NEX Group's BrokerTec and Hi-MTF.
- CC&G eliminates counterparty risk by sitting in the middle of a trade as the buyer to every seller and the seller to every buyer, becoming the guarantor for final settlement of the contracts.
- CC&G provides services across a diverse range of asset classes including equities, ETFs, derivatives, close-end funds, fixed income and commodity derivatives.
- CC&G has an interoperability agreement with LCH S.A. for European Bond and Repo markets.

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