

# CME Group Risk Management Interface: Overview for Clearing Firms & Third-Party Providers

April 2012

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# CME Group Risk Management Tools & Services

Clearing Firms' ability to manage and contain risk is critical in today's dynamic world of electronic trading. Risk management has evolved with the growth of algorithmic, high frequency, and Direct Market Access (DMA) trading.

CME Group offers a suite of tools and services to enhance Clearing Firms' ability to manage these risks:

- **FirmSoft:** View and cancel CME Globex orders via a browser-based interface
- **Drop Copy:** FIX-based interface for delivery of a real-time, duplicate feed of iLink outbound messaging
- **Cancel on Disconnect (COD):** Automated cancellation of non-GTC/GTD orders when an iLink session disconnects ungracefully
- **CME Globex Credit Controls (GC2)** pre-execution risk control allows Clearing Firms to set real-time credit limits on Executing Firms
- **GCC Authorized Contacts:** Individuals authorized to call the Global Command Center to check status and cancel orders

# CME Globex Credit Controls (GC2) Review

CME Globex Credit Controls (GC2) was launched in 2008 and is intended to complement existing Clearing Firm risk systems and front-end risk tools.

This mandatory tool is intended to provide backstop risk functionality, addressing the high-level risks associated with:

- **Automated Trading Systems (ATS)**
  - High-frequency and algorithmic systems
  - “Runaway” ATS risk
- **Clearing firm customers with DMA access**
  - Customers using own connectivity
  - Customers using proprietary applications direct to CME Globex
- **Catastrophic risk**
  - Provide protections against any type of adverse execution activity
  - Takes infinity risk off the table
- **Real-time functionality with no introduction of latency**

# Risk Management Interface Overview

# Risk Management Interface Overview

**CME Group risk management offerings continue to evolve. On April 1<sup>st</sup> the new Risk Management Interface (RMI) was introduced.**

- RMI Supports more granular, pre-trade risk management for Clearing Firms
- Consists of two components, an API and a GUI
- Allows Clearing Firms to programmatically (API) or manually (GUI) send instructions to block or un-block order entry by a combination of the following required attributes:
  - Execution Firm AND
  - Account AND
  - Derivative type (Futures/Options) AND
  - Side (Buy/Sell) AND
  - Product \*\*\*this attribute is optional\*\*\*

# Risk Management Interface Overview

- Clearing Firms' risk systems can leverage a real-time feed, such as CME Group's Drop Copy, to perform internal risk calculations which can send account level block (or un-block) instructions via the RMI API
- The RMI GUI can be leveraged to provide a redundant, web-based view into the RMI API activity, or to complement Clearing Firms' risk systems
- Available only to Clearing Firms and third-party risk application providers

# RMI API Functionality



# RMI API Functionality

The RMI API is a Web Services solution leveraging HTTP messaging. This allows clearing firms (directly or via certified third-party risk applications) to programmatically:

- Block/un-block new orders and order modifies
- Retrieve active block instructions report
- Request Product to Exchange mapping information

Clearing Firms can take action on trading permissions, programmatically and in real-time

# RMI API Functionality

## Product Lists for Order Routing

To better support Risk Administrators' need to block order routing for an entire product group, derivative type, or exchange, the RMI API provides the ability to request product information by:

- All products
- All products for a specific exchange
- All futures for a specific exchange
- All options for a specific exchange

# RMI API Functionality

## Session Connectivity

The RMI API solution supports both session and “session-less” connectivity

- Credentials are issued to Risk Administrators upon on boarding
- Log in to begin a session
- Log out to close a session
- All API messages must include credentials in the HTTP header
- More than 5 failed logins result in locked access. Risk Administrators must contact the CME Global Command Center to unlock the access
- Ping message supported to persist Risk Administrator’s session

# RMI API Functionality

## Session-Less Connectivity

- Credentials are issued to Risk Administrators upon on boarding
- RMI API messages must include credentials in the HTTP header
- An authorization is performed for each message
- More than 5 failed authorizations result in locked access. Risk Administrators must contact the CME Global Command Center to unlock the access
- Log in and log out are not required
- Ping message supported to verify API availability

# RMI API Functionality

## AutoCert+ Certification

Certification in the AutoCert+ tool is **mandatory** in order to access the RMI API in production

The RMI API is currently available in the New Release environment for testing and certification

The Customer Support for Electronic Training (CSET) team is the development support team

Contact your Global Account Manager to begin the testing and certification process

The RMI GUI does not require certification

# RMI GUI Functionality

# RMI GUI Functionality

Web-based interface that allows Clearing Firm Risk Administrators to:

- Block/Un-block order entry at the same levels as the API
  - Execution Firm AND
  - Account AND
  - Derivative type (Futures/Options) AND
  - Side (Buy/Sell) AND
  - Product \*\*\*this attribute is optional\*\*\*
- View current blocks
- View block/un-block history – 10 days or the last 5000 actions

For redundancy, Clearing Firms using the RMI API are strongly encouraged to leverage the RMI GUI as well

Clearing Firms can use the RMI GUI as a stand-alone to complement existing risk systems

# RMI GUI Functionality

## RMI GUI and GC2 GUI Single Point of Access

RMI GUI is a separate tool from GC2, however it is available via a new tab in the same login screen for Risk Administrators entitled for both tools.

Both tools are now accessible from the new Risk Management Tools page


<https://risktools.cmegroup.com/>

Current GC2 Risk Administrators are not automatically entitled to RMI GUI



# RMI GUI Functionality

## RMI GUI Screen Shot 1 – Login

 **CME Group** | Risk Management Tools

CME Global Command Center  
North America : (+1) 312-456-2391  
Europe : +44-20-7623-4708  
Asia : +65-6223-1357

[? Help](#)

[GC2](#) | [RMI](#) | [Reports](#) | [Logout](#)

### RMI - Block/Unblock

Legal Clearing Entity RMI TEST FIRM 925

Execution Firm

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[Active Blocks](#) | [Create Blocks](#)

Account Filter  current as of 04/03/2012 02:55 PM cst [Refresh](#)

	Account ID	Side	Product Type	Product	Product Description
<input type="checkbox"/>	1234	Buy	Options	All Products	
<input type="checkbox"/>	1234	Buy	Futures	All Products	

# RMI GUI Functionality

## RMI GUI Screen Shot 2 – Creating Blocks

### RMI - Block/Unblock

Legal Clearing Entity RMI TEST FIRM 925

Execution Firm

Active Blocks Create Blocks

#### Block Criteria

Account  Copy to List

Account List

Filters

Exchange

Product Type

Complex Type

Product

12C - Corn Dec-Dec CSO  
 12S - Soybean Nov-Nov CSO  
 12W - Wheat July-July CSO  
 18E - Euro FX 1-month Realized Volatil  
 1FX - FX\$Index Front Month Synthetic  
 1O - Japanese Yen/Euro Style Options  
 1Q - Euro FX/Euro Style Options Wk 1  
 2F - Bankstown Sydney HDD Monthly  
 2FJ - Bankstown Sydney HDD APR Se

Side

#### Pending Blocks

	Account ID	Side	Product Type	Product	Product Description
<input checked="" type="checkbox"/>	5678	Buy	Futures	All Products	
<input type="checkbox"/>	5678	Buy	Options	All Products	
<input checked="" type="checkbox"/>	5678	Sell	Futures	All Products	
<input type="checkbox"/>	5678	Sell	Options	All Products	



# RMI GUI Functionality

## RMI GUI Screen Shot 3 - Blocking

Legal Clearing Entity RMI TEST FIRM 925

Execution Firm

Active Blocks Create Blocks

Account Filter

current as of 04/03/2012 09:57 AM cst

[Refresh](#)

	Account ID	Side	Product Type	Product	Product Description
<input checked="" type="checkbox"/>	1234	Buy	Options	All Products	
<input checked="" type="checkbox"/>	1234	Buy	Futures	All Products	

[⏪](#) [⏩](#) 1-2 of 2 [⏪](#) [⏩](#)

[Unblock](#)

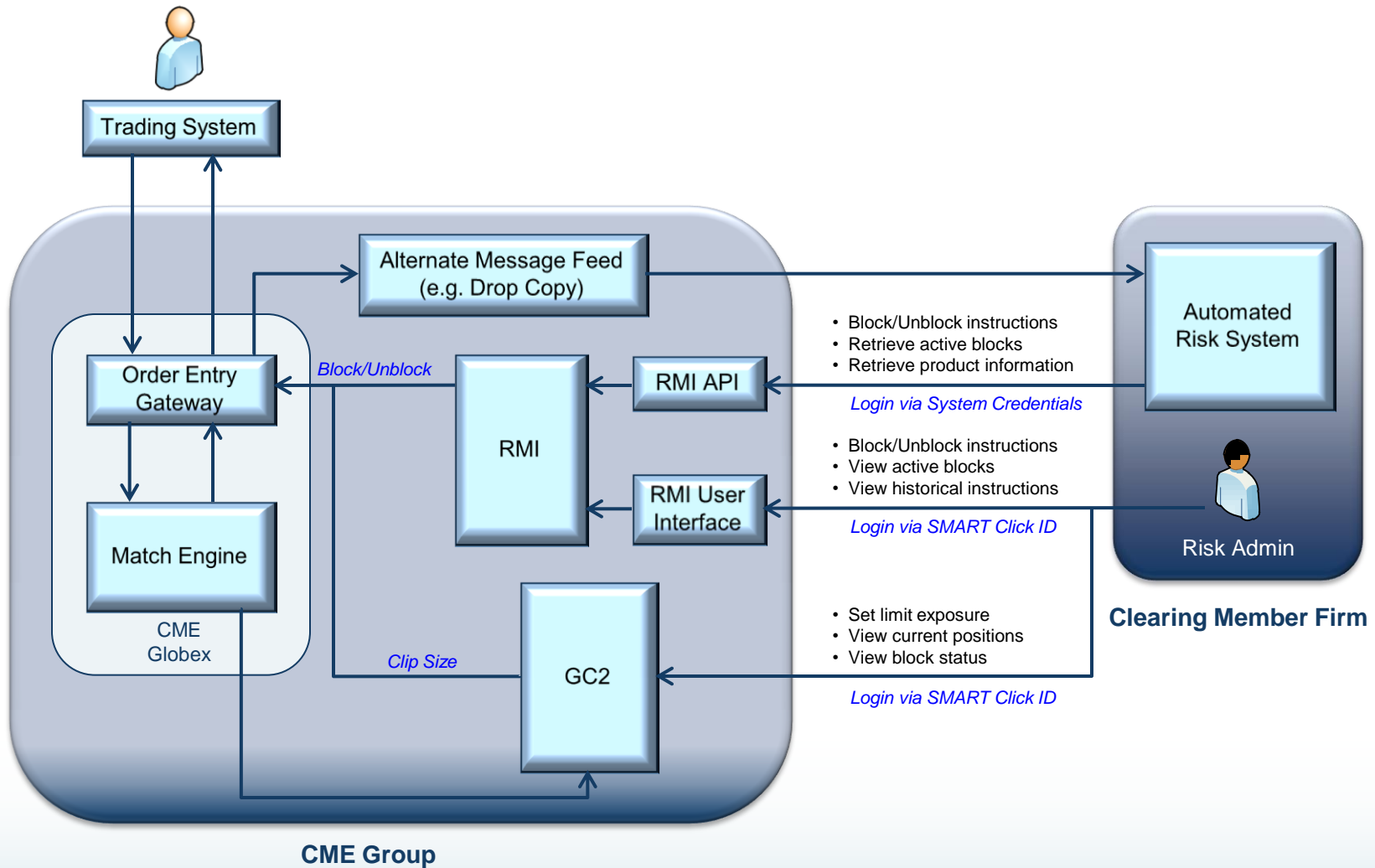
[Clear Selected](#)

## GC2 – RMI Comparison

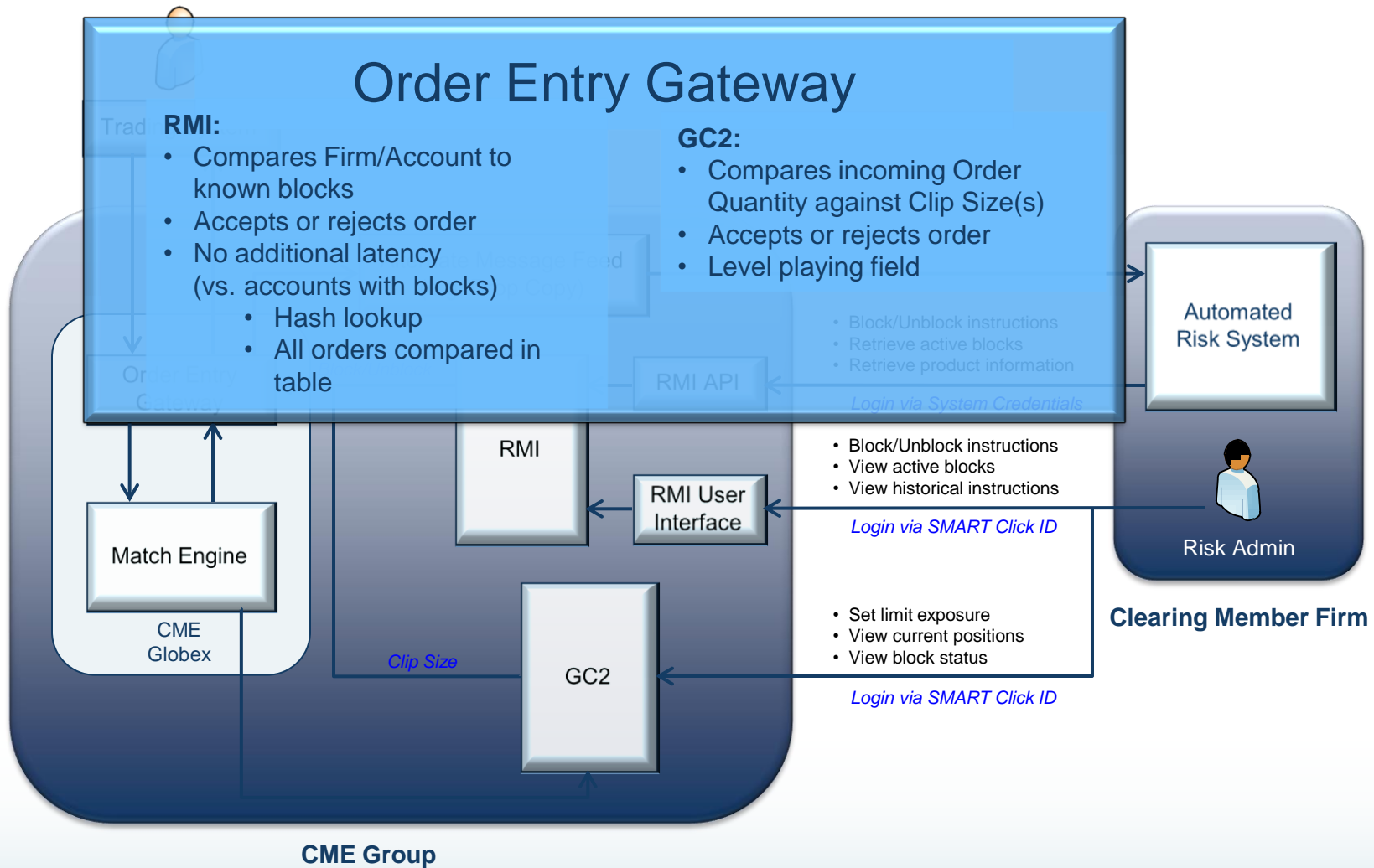
GC2	RMI
Mandatory	Optional
Only available via GUI	Available via API and GUI
Limits applied at Executing Firm level	Block/Un-block applied at account level
Stand-alone backstop system to complement Clearing Firms' existing risk systems	Designed to interface with Clearing Firms' own risk system for block/un-block messages. (Cancel functionality coming early Q4)
Position calculations performed based on order activity	No calculations performed. RMI is a customer initiated block/un-block tool

# RMI Technology Overview

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# RMI Technology Overview



# RMI Technology Overview

Risk Feature	GC2	RMI
Enforcement Level	Execution Firm	Account
Enforcement Mechanism	Clip Size	Block Instructions
Algorithm	Dynamic per Trade Activity	Static
Persistence (across trading weeks)	Working Positions (via GT orders)	Block Instructions



# CME Group Risk Management Tools Future Enhancements

# CME Group Risk Management Tools Future Enhancements

## CME Globex Credit Controls (GC2) – Q3 2012

- Mid-week adds functionality supported
  - Clearing firms will have the ability to apply credit controls to CME Globex Execution Firms that have been newly created or transferred during the week
  - Currently GC2 limits for CME Globex Execution Firms created mid-week take affect on Sunday prior to market open

## RMI API – Q4 2012

- Ability to cancel working orders (including GTCs/GTDs) with a single instruction from the RMI API

Stay tuned to the CME Globex Notices for more information regarding these enhancements

# On Boarding & Support

# On Boarding & Support

- To request access to the RMI API or GUI, Clearing Firm Administrators must complete Schedule 6 Exhibit D (API access) or Exhibit E (GUI access) to the CME Connection Agreement found here:

<http://www.cmegroup.com/connectionagreement>

- Only authorized CME Group Clearing Firm Administrators will have the ability to authorize access for RMI Risk Administrators
  - Credentials for the RMI API are issued to Risk Administrators
  - Risk Administrators will use a SMART Click user ID and a secure link to access the RMI GUI
- Please contact your Global Account Manager to request more information on certification and production access
- The Global Command Center provides first level production support for the RMI

# Contacts & Resources

## Web Site

<http://www.cmegroup.com/rmi>

- Includes presentation and links to all technical and functional documentation

<http://www.cmegroup.com/tools-information/webhelp/>

- Link to the RMI GUI Web Help doc (under “Risk Management Tools”)

## Key Contacts

### Global Account Management

- On boarding, certification, basic functionality questions
- US (312) 930-8700
- Europe 44 20 3379 3754
- Asia 65 6593 5574
- [globalaccountmanagement@cmegroup.com](mailto:globalaccountmanagement@cmegroup.com)

### Clearing House Risk Management

- Risk management or policy questions
- Clearing House Risk Hotline (312) 648-3888
- [Clearingriskmanagement@cmegroup.com](mailto:Clearingriskmanagement@cmegroup.com)

### Global Command Center

- Production Support
- US (312) 456-2391, choose Option 3
- Europe 44 20 7623 4708, choose Option 3
- Asia 65 6223 1357, choose Option 3

# Questions & Answers