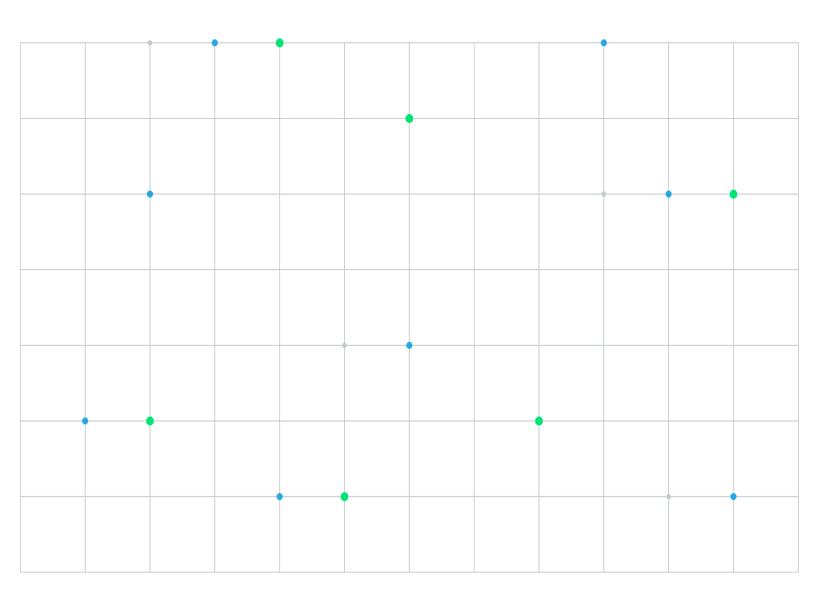


Account Management Service User Manual

22 April 2024



Neither futures trading nor swaps trading are suitable for all investors, and each involves the risk of loss. Swaps trading should only be undertaken by investors who are Eligible Contract Participants (ECPs) within the meaning of Section 1a(18) of the Commodity Exchange Act. Futures and swaps each are leveraged investments and, because only a percentage of a contract's value is required to trade, it is possible to lose more than the amount of money deposited for either a futures or swaps position. Therefore, traders should only use funds that they can afford to lose without affecting their lifestyles and only a portion of those funds should be devoted to any one trade because traders cannot expect to profit on every trade. All examples discussed are hypothetical situations, used for explanation purposes only, and should not be considered investment advice or the results of actual market experience.

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Getting Started

Account Management Service is used by Clearing, Execution Firm, and Trader Risk administrators to create and manage accounts associated with CME Globex, Inline Credit Controls (ICC), Over The Counter (OTC), CME Direct and Spot FX.

The following functions are available:

- Registration and Login: Access Account Management Service with a valid CME Group Login.
- Account <u>Creation</u> and <u>Management</u>: Create and update CME Direct (CME Globex), CME ClearPort and ICC (CME Globex) accounts, including access and entitlements:
 - Trading services.
 - Market types, products, brokers.
 - Credit Controls: Credit and Product quantity limits.
 - FX Link and FX Spot+ Credit Management and Account Setup
 - Uploading account updates / <u>Bulk Upload</u>: Download account details as a spreadsheet, then upload to update multiple accounts.
- <u>Trade Type Restriction</u>: View and restrict CME ClearPort enabled accounts from submitting block trades.
- <u>Dashboard</u>: Functionality overview.

What's New

The list below illustrates the updates made to the Account Management Service Help system.

Date	Торіс	Description
22 April 2024	Create New Account	Agency Cross (A-Cross) crossing protocol has been decommissioned. See also: NYMEX/COMEX Rule 539.C (Pre-Execution Communications Regarding Globex Trades).
26 June 2023	Credit Controls	Added Account Credit Control Models and CME ClearPort Product Position Limit details
31 October 2022	Format	Website and PDF format changes only.
19 October 2022	Create New Account	Expanded restricted special characters for customer created account numbers
22 June 2022	 Searching Accounts Create New Account Managing Accounts 	Updated search for Account Owner Name and/or Legal Entity Identifier (LEI). Users can configure accounts with different registered owners to be margined together.
24 February 2020	<u>Credit Controls</u>	Updated option limit calculation examples
17 July 2019	Calculating ICC Limits	ICC calculation details and examples are included
21 March 2019		Summarizes the FX Link / Spot FX onboarding and setup process.
14 February 2019	Managing ICC Credit Controls via Upload	Updating multiple execution firm product limits, via upload.
13 November 2018	Creating an Account	Created individual chapters that illustrate account creation.
30 October 2018	all	updated upload / download process - ICC, accounts, credit controls.
27 August	all	Initial release.

Account Management Service

Date	Торіс	Description
2018		

Logging In

After confirming CME Group Login registration and association with a Account Management Service authorized firm, review the following login instructions.

CME Group Login

CME Group Login is a self-managed, centralized user profile service that authenticates access to Account Management Service and other applications and services.

- Create a new CME Group Login user ID and profile: Prior to accessing, all users must have an active login profile.
- Review the CME Group Login User Guide: Access guidance and instructions: register, retrieve forgotten user ID, reset password, update profile and manage other services.
- Update a CME Group Login User ID and profile: Login privileges are retained even if users change firms, email address, registration information, User ID or password. Some instances may require access and entitlements update.

For additional registration or login assistance, including forgotten user ID and password, contact Enterprise Access and System Entitlements (EASE).

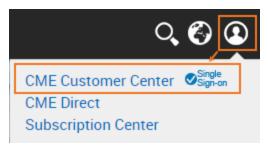
To request application access, contact Global Account Management.

Log In



To login to Account Management Service:

1. Using a <u>supported</u> web browser, navigate to <u>cmegroup.com</u>., select the <u>Login / Profile icon</u>(), then select <u>CME</u> Customer Center (single sign on).



2. On the page that appears, enter the CME Group Login ID and Password, then select Login .



3. From the Portfolio & Risk tab, select Account Management Service.



Note: For login or access issues, contact Enterprise Application & System Entitlements (EASE) or go to the CME Group Login page.

Log Out

From the CME Customer Center menu, select the Login / Profile icon (

If the application is idle for 30 minutes, the system automatically times out.

Roles and Entitlements

Account Management Service application functions are available to clearing and executing firm users, with the ability to assign multiple entitlements to a single user.

Role requests are coordinated with <u>Global Account Management</u> (GAM). Access issues are managed by <u>Enterprise</u> <u>Application & System Entitlements</u> (EASE).

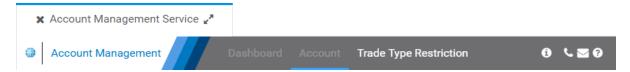
Example : To authorize a clearing firm administrator, for CME Globex and CME ClearPort, select: - Globex Clearing Firm Account Admin and CPC Clearing Firm Account Admin.			
Role	Firm Type	Platform	Entitlement Description
Clearing Firm Account Administrator	CME ClearPort, CME Direct (Globex), Spot FX, Inline Credit Controls (Globex)	View, create, edit accounts, including multiple account updates using download / upload. Manage risk by setting market types, products, broker / asset manager access. Set credit limits and controls at the account and product levels. Restrict CME ClearPort accounts eligible for pre-negotiated trade submissions by Trade Type. Create Delegated Intermediary (DI) accounts and flag clearing accounts as DI. Manage Customer (Parent) Accounts, which are owners of trading subaccounts.	
			Note: Services (trading platform) assignment restricts accounts to the specified platform only. To authorize additional platforms, select additional services. Administrative users must be authorized to the platforms they wish to manage (e.g. to manage a CME Direct authorized account, the administrator must also be an authorized CME Direct administrator). - CPC Clearing Firm Account Admin: CME ClearPort - Globex Clearing Firm Account Admin: CME Direct - ICC Clearing Member Firm Account Admin: CME Globex - A, download / upload ICC configuration, alert threshold alerts, execution firm order entry suspension. Also manages Admin Policy (via Entity Risk Management), alert thresholds, product restrictions.
			Spot FX View, Create, Edit Spot FX accounts. Download accounts configuration, upload multiple account updates. View and edit clearing accounts, firm rights, asset managers, credit limits.
Execution Firm Account Administrator	Execution Firm	CME Direct (Globex), Spot FX, Inline Credit Controls (Globex)	Create ICC accounts. Set product quantity and credit limits. View Admin policy settings and alerts, set by the Clearing Member Firm Account Administrator. Manage execution firm order entry permissions. Download / upload ICC account and credit control updates.
Sub Clearing Member Firm Account	Clearing Firm	Inline Credit Controls (Globex)	For a sub-clearing firm, that is guaranteed by a parent Clearing Member Firm. View, create, edit clearing and execution firm (ICC) accounts.

Administrator			Manage risk by setting market, product and broker access. Set credit limits and at the account and product quantity limits. Restrict CME ClearPort accounts eligible for pre-negotiated trade submissions, by Trade Type. Identified as the controlling firm of an execution firm; requires at least one execution firm.
Trader Administrator	Trading Firm	CME ClearPort, CME Direct (Globex)	View, create and edit Trading Accounts, including owner firm, broker firms, traders, services and status. View eligible sub-accounts, credit controls, where the trading firm is the account owner. Note: Cannot create trading sub-accounts.
Trader Risk Administrator	Trading Firm	CME ClearPort, CME Direct (Globex)	Create and edit trading sub accounts, that clear through the delegated intermediary and clearing member firm, including credit controls, credit limits. Manage broker firm and trader assignments.
Broker Viewer	Broker	CME ClearPort, CME Globex	Search and view accounts for which their broker firm(s) are assigned entitlements. For a given account, view products and services.

Dashboard

The Dashboard provides an overview of Account Management Service functions and support contacts.

Available functions:



- Accounts
- Trade Type Restriction
- 📵 Info: View the current user and system version.
- See Phone: Opens a dialog to contact the CME Global Command Center (GCC).
- Dens the default email program to send a support request.
- Pelp: Opens the User Manual / WebHelp.

Account Functions

From the Account menu, Clearing, Execution and Trader Risk administrators can create and manage accounts authorized for CME Globex, CME Direct, CME ClearPort, Inline Credit Controls and Spot FX.

The following functions are available:

- Search / View Accounts
- Create a New Account
- Trading Account / Trading Sub-Account
- Credit Controls
- Managing Accounts

Account Search

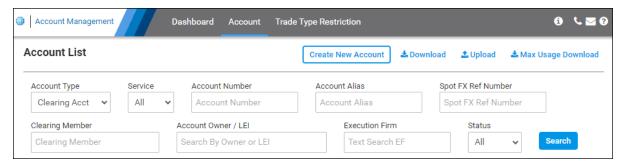
Use the Account function to search and view account configuration details or create a new account.



- 1. Go to the Account page.
- Select the Account Type, then perform a search.
 Based on the selected Account Type, search criteria may vary.
- 3. Enter search criteria.

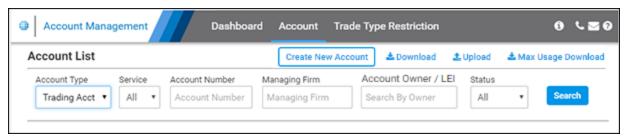
Partial entries are accepted, results matching any of the entered characters will appear.

- Clearing Account Select / specify search criteria:
 - Service CME Direct (CME Globex) Inline Credit Controls [(ICC)(CME Globex)] CME ClearPort
 - Account Number The alphanumeric identifier for ClearPort or CME Globex accounts that identify the trading firm. ClearPort account numbers may be up to 20 characters. CME Globex account numbers may be up to 12 characters.
 - Account Alias An account identifider that refers to the Account, Origin and Clearing firm and is assigned by the trading firm.
 - Spot FX Ref Number Optional user specified external reference number
 - Clearing Member Registered member clearing firm
 - Account Owner / LEI Search by the account owner name or Legal Entity Identifier. As characters are entered
 matching results appear.
 - Execution Firm Equivalent to the session ID, the firm that submits orders.
 - · Status Active / Inactive / All / Pending



- Trading Account Select / specify search criteria:
 - Managing Firm A Delegated Intermediary firm that creates and manages sub-accounts.

For additional field descriptions, refer to Clearing Account (above).



- 4. Clicking **Search** without criteria returns all accounts you are authorized to view.
- 5. To view Account Details, select the **blue** linked Account Number.

Additional Account Functions

- Create New Account
- Manage / Update existing account(s)
- Download / Upload (Bulk Update)
 - Download configuration as a MS Excel spreadsheet.
 - Update then Upload the file to update the configuration for multiple accounts.
- Max Usage Download

Create New Account

Use the Account function to search, create and manage clearing and trading accounts (including trading sub-accounts).

Account setup includes *platforms* / *services* CME Direct (CME Globex), CME ClearPort, Inline Credit Controls (CME Globex), Spot FX, Straight-Through Processing, products, broker permissions and credit controls.

The following instructions illustrate the process to create an account.

Overview

- 1. Create New Account button
- 2. Clearing Account Settings
 - Trading Account / Trading Sub-Account (if applicable)
- 3. Select Service(s):
 - CME Direct (CME Globex
 - CME ClearPort
 - Inline Credit Controls (CME Globex)
 - Spot FX
 - · Straight-Through Processing Create an account enabled for CME STP (only Clearing Account Settings are required)
 - a. Market Type Permissions
 - b. Product Permissions
 - c. Broker / Asset Manager Permissions

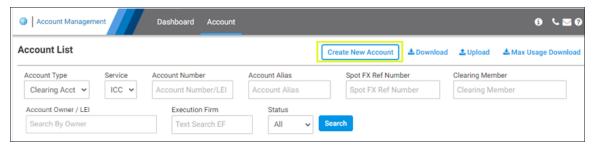
- d. Credit Controls
- e. Save and Activate account (or create as Inactive, to finish later)



To Create an Account:

Before creating a new account, perform an account <u>search</u> to ensure it doesn't exist.

1. From the Account page, select the Create New Account button.



On the page that appears, specify Clearing Account Settings.
 Clearing member*

Clearing members assume financial and performance responsibility for all transactions executed through them and cleared by CME Clearing whether it is for the account of a customer, member, or their own account.

Account Number *

The alphanumeric identifier for the account that is unique at the firm.

- CME ClearPort: Up to 20 characters.
- CME Globex (CME Direct or ICC): Up to 12 characters.

If more than 12 characters are entered, CME Globex service will not be available for selection.

Do not use the following special characters in the first, second or last position.

@	at
%	percent
٨	caret
&	ampersand
(left parentheses
)	right parentheses
-	underscore
=	equal
{	left brace
}	right brace
[left bracket
1	right bracket
I	vertical bar
\	backslash

:	colon
;	semi colon
п	double quote
1	single quote
<	less than
>	greater than
,	comma
	period
Space	space

Description*

User specified identification details.

Owner Firm*

The Trading firm or LEI owner of this account.

If the clearing account is designated as Delegated Intermediary (DI); specify by the clearing member firm. Additional details are inherited from Trading Account Owner.

DI (parent) accounts cannot be updated via Bulk upload.

Asset Manager (Controller) Firm

Enter the name in the field; available choices appear based on the partially entered name.

For DI and sub-accounts: If an asset manager firm is assigned to the clearing account, trading sub-accounts cannot be created and the DI selection will not be available.

Owner's Primary Business Activity*

Required when shown.

Country of Origin*

Appears when a dynamic (not registered) owner firm is specified.

House / Customer Indicator*

Indicates whether the account represents customer segregated funds or house funds.

CTI Code*

CTI1 - An individual member trading for her or her own account, **CTI2** - A member firm trading for its proprietary account, **CTI3** - A member firm trading for another member, **CTI4** - All other individuals.

Portfolio Margin Futures

Enables the account for the Portfolio Margining program for futures.

Delegated Intermediary (DI)

Specified by the clearing member firm administrator, instead of Asset Manager.

Margin Account

Enables customer accounts to aggregate trades to calculate OTC trade cross-account margin offsets. The Margin Owner field specifies the registered owner firm.

- SELF: Non-CME ClearPort accounts use Self, which assigns the same account number as the owner.
- Specify Margin Account: Associate accounts with clearing member, beneficial owner, designated margin account.
- Margin multiple accounts to same owner firm: For CME ClearPort accounts only, multiple accounts, with different Owner Firms, can use the same Margin Account.

The accounts must be associated with the same Clearing Member and the Owner Firms for both accounts must use the same LEI.

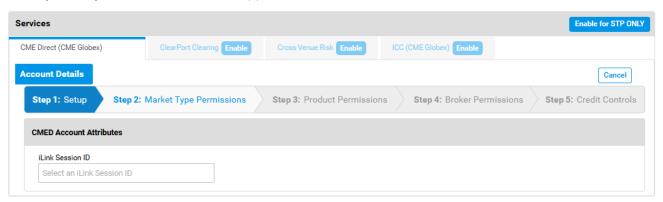
3. Select a **Service**, then specify **Account Details**:

For detailed instructions by service, refer to:

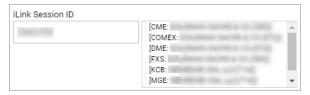
- A. CME Direct (CME Globex)
- B. ICC (CME Globex)
- C. Spot FX
- D. CME ClearPort

CME Direct (CME Globex)

- A. CME Direct (CME Globex) Select the CME Direct (CME Globex) tab, then specify the following:
 - i. For Step 1: Setup, Enter the iLink Session ID(s) to enable.



The **iLink Session ID** (also known as SenderComp) obtained from <u>Global Account Management</u> is used for in-house brokerage purposes, is submitted with trades, and associated with Clearing Member firms that appear with the selection.



Clearing Firms can assign a default iLink Session ID / SenderComp for in-house Broker entities.

Note: If an iLink Session ID is not selected, a dialog appears and must be acknowledged before proceeding with account setup.

ii. Select Step 2: Market Type Permissions, then select at least one Market Type (required).



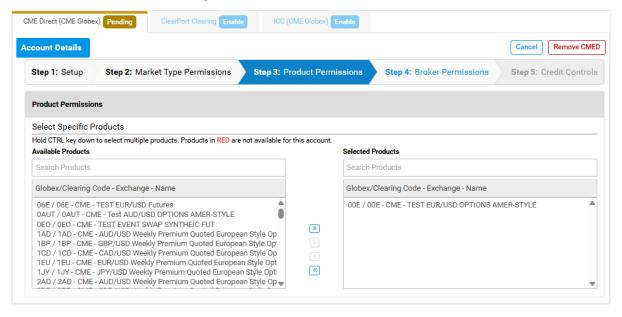
- None: Submitting orders for this Market Type, including all Products is restricted.
- Specific: Requires selection of individual (step 3) product permissions
- All: Enable order submission for all products in the selected market type.

Note: Specific and All, requires setting credit and long / short quantity limits (step 5); configured with the Credit Controls function.

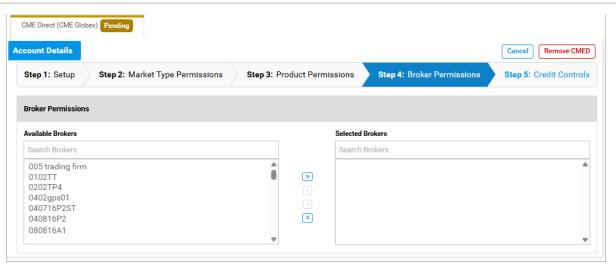
iii. (If *Specific* was selected for at least one product in the previous step), select **Step 3: Product Permissions**. From the Available Products, **add product**(s) the account will be permitted to trade.

Note: To find a specific product, enter the symbol or name (including partial) in the search field.

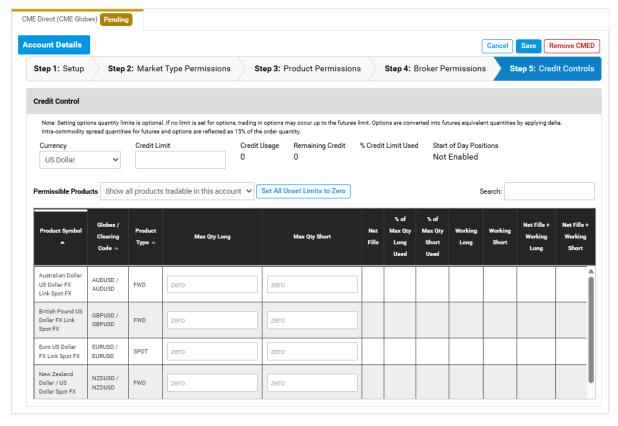
- Remove: < / Remove All:
 from the Selected Products list.



iv. Select Step 4: Broker Permissions, then specify brokers authorized to operate this account.



- Remove: <a> / Remove All: <a> from the Selected Brokers list.
- v. Select Step 5: Credit Controls, specify the Currency, RAV and product (long/short) limits.



- Currency select the currency denomination
- (Risk Asset Value) RAV Limit(required) The entered amount is denominated by millions in the selected currency.
- Max Qty Long / Short The default is unlimited. Pending entries are indicated by green.

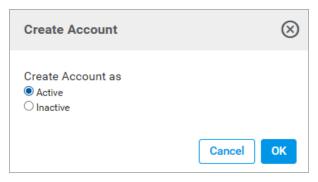
Max Qty Long	Max Qty Short
1	1

Additional Options

- Permissible Products Show all products tradable in this account / Show Products with individual limits Show products with specific limits.
- Set All Unset Limits to Zero: Enters 0 for all Max Qty Long / Max Qty Short fields not already entered.
- **Search** Filter to products that match the entered symbol and/or name.

Additional Information

- Margin Usage Amount (of the RAV limit) used.
- Remaining Margin Of the total available RAV limit.
- % Margin Used Margin Usage expressed as a percentage of RAV limit.
- Max Margin Usage Maximum utilization for the day. View available credit to determine if action is necessary.
- Export Max Margin Usage Report(♣) View historical Max Margin usage and end of day RAV limits.
- vi. Select **Save**, then finalize account creation by creating as **Active** or **Inactive**.

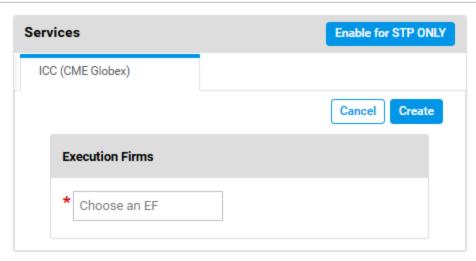


Note: To activate the account later, search for the inactive account, go to the Account Settings page, then select Activate.

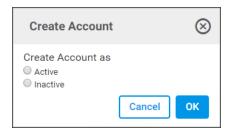
ICC (CME Globex) back to top

- B. ICC (CME Globex) Select the ICC (CME Globex)tab, then specify the following:
 - For Step 1: Setup, Specify the Execution Firm(s)* to associate with the account.

As you type, matching execution firms appear in a list; select to add.



 Select Create, then specify whether to create as Active or InactiveTo configure or modify settings at a later time.



Note: To activate the account later, search for the inactive account, go to the Account Settings page, then select Activate.

- iii. To complete account creation, go to Managing ICC Credit Controls and set Clearing Member and Execution Firm product limits.
 - ICC (CME Globex) does not require Market / Product / Broker permissions.
- iv. ICC order management uses firm-wide policy settings to manage maximum allowable product limits.

 To manage order handling from unregistered accounts or for products with unset limits go to Entity Risk Management Policy & Threshold Settings.

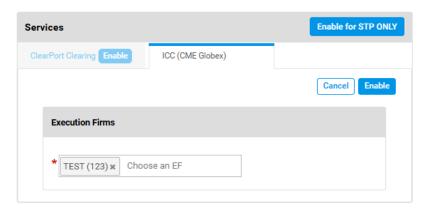
Spot FX back to top

C. Spot FX - Select the ICC (CME Globex) tab, then continue to set up Spot FX.

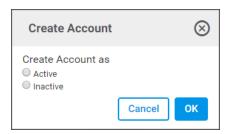


i. Specify Execution Firm(s)* details.

As you type, matching execution firms appear in a list; select to add.



 Select Enable, then specify whether to create as Active or Inactive To configure or modify settings at a later time.



Note: To activate the account later, search for the inactive account, go to the Account Settings page, then select Activate.

- iii. To complete account creation and activation, view Entity Risk Management Spot FX instructions to view details on linking Trading Firms and setting Spot FX Credit Controls (via ICC).
 - Spot FX enabled does not require Market / Product / Broker permissions.

Creating ClearPort Account

CME ClearPort provides Brokers, Traders, and Asset Managers an application to enter and submit off-exchange deals for clearing through CME Group.

An *authorized CPC Clearing Firm Account Admin, entitled for a clearing firm* clearing firm account administrator can use Account Management Service (AMS) functions to create and manage accounts for entering privately-negotiated over-the counter (OTC) transactions into CME ClearPort.

Prospective CME ClearPort market participants (individual, clearing firm, brokerage firm, trading firm) must complete the following to receive access to CME ClearPort clearing services.

- Create and register a CME Group Login ID to authenticate access to CME Group applications and services.
- (if applicable) Confirm that the associated clearing firm / front-end provider / Independent Software Vendor (ISV) is enabled for products that will be used for CME ClearPort.
- Complete and submit the CME ClearPort Services Registration.
- Complete and submit the <u>OTC Clearing Account Registration</u>.
 Users will receive notification when access is authorized; when Account Management Service is available for account



Note: Additional setup may be required (see below examples):

- -Products (e.g. CBOT Treasury Invoice Swaps, CME IRS).
- -Firms Associated firms must be setup and enabled for the same products and clearing firm associations as the account.
- -Users creating and managing accounts must have entitlements to add accounts for a firm.

See also: CME ClearPort

For additional assistance, contact Global Account Management.

Refer to the below instructions to use Account Management Service to create and activate an account entitled for CME ClearPort market types.

- a. Identify <u>account</u> settings and their relationship to the clearing member.
- b. Select the Service (ClearPort Clearing) and account details.

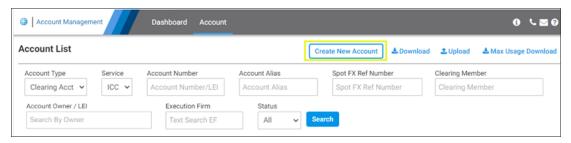


- i. **Setup** Select the account attribute / type.
- ii. Market Type Permissions Assign Market types for products the account can trade.
- iii. Product Permissions Select individual products associated with the selected market types.
- iv. **Broker Permissions** Specify broker firms that can submit trades.
- v. Credit Controls Specify risk value and long / short quantity limits.



To create a CME ClearPort account:

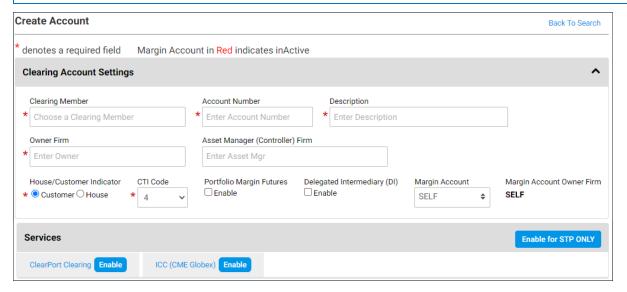
1. From the Account Management Service, select the Account tab, then select Create New Account.





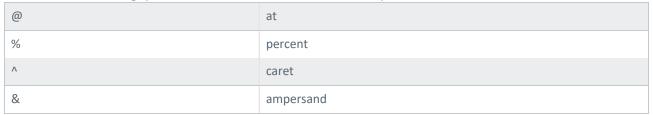
2. On the page that appears, specify Clearing Account Settings.

Note: Required fields are indicated by a red asterisk (*).
The Clearing Account Settings pane includes a button ★ to minimize its appearance.



Clearing Account Settings:

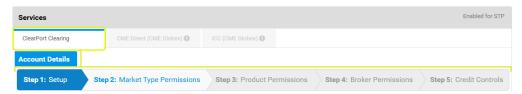
- Clearing Member*: Clearing members assume financial and performance responsibility for all transactions executed through them and cleared by CME Clearing whether it is for the account of a customer, member, or their own account.
- Account Number*: Up to 20 characters. The alphanumeric identifier for the account that is unique at the firm. Do not use the following special characters in the first, second or last position.



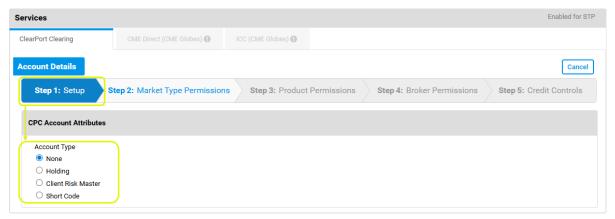
0	
(left parentheses
)	right parentheses
-	underscore
=	equal
{	left brace
}	right brace
1	left bracket
1	right bracket
1	vertical bar
\	backslash
:	colon
;	semi colon
п	double quote
1	single quote
<	less than
>	greater than
,	comma
	period
Space	space

- **Description***: User specified identification details.
- Owner Firm*: The Trading firm or LEI owner of this account. If the clearing account is designated as Delegated Intermediary (DI); specify by the clearing member firm. Additional details are inherited from Trading Account Owner.
 - DI (parent) accounts cannot be updated via Bulk upload.
- Asset Manager (Controller) Firm: Enter the name in the field; available choices appear based on the partially entered name.
 - For DI and sub-accounts: If an asset manager firm is assigned to the clearing account, trading sub-accounts cannot be created and the DI selection will not be available.
- House / Customer Indicator*: Indicates whether the account represents customer segregated funds or house funds.
- CTI Code*: CTI1 An individual member trading for her or her own account, CTI2 A member firm trading for its proprietary account, CTI3 A member firm trading for another member, CTI4 All other individuals.
- Portfolio Margin Futures: Enables the account for the Portfolio Margining program for futures.
- Delegated Intermediary: Specified by the clearing member firm administrator, instead of Asset Manager.
- Margin Account / Margin Account Owner Firm: Enables customer accounts to aggregate trades to calculate OTC trade cross-account margin offsets. The Margin Account Owner Firm specifies the registered owner firm.

- SELF: Non-CME ClearPort accounts use Self, which assigns the same account number as the owner.
- Specify Margin Account: Associate accounts with clearing member, beneficial owner, designated margin
 account.
- Margin multiple accounts to same owner firm: For CME ClearPort accounts only, multiple accounts, with different Owner Firms, can use the same Margin Account.
 - The accounts must be associated with the same Clearing Member and the Owner Firms for both accounts must use the same LEI.
 - **Edit** the account, then select the Owner Firm from the **Margin Account** field.
- 3. From the Services panel, select ClearPort Clearing then specify Account Details (steps 4-8, below).

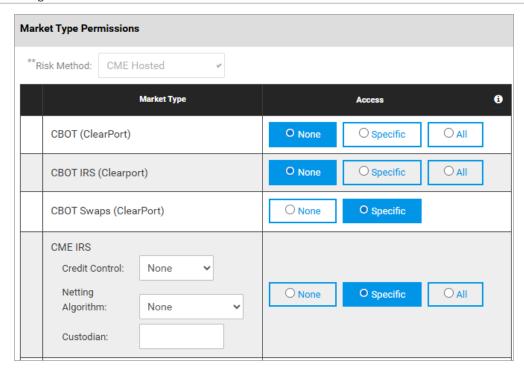


- 4. For **Step 1: Setup**, select the **Account Type**.
 - None: Default selection
 - **Holding**: Allows Asset managers to submit swap sides that will be subsequently reallocated or given up. If selected, the account cannot be a Delegated Intermediary (DI).
 - If selected, the account cannot be a Delegated Intermediary (DI).
 - Client Risk Master: Allows FCM brokers to submit Block trades and EFRP's for multiple clients using a single *CRMA* account for subsequent allocation or give-up.
 - Enables brokers to submit customer Block or EFRP trades into a single account for post-trade allocation. These accounts are only permitted for brokers registered under an Exchange Clearing Member Firm; cannot be used by non-clearing firm brokers (see: Client Risk Master).
 - **Short Code**: Allows Brokers to submit Block trades and EFRP's for trading firms not registered with CME ClearPort. A separate account must be used for each trading firm.
 - Enables brokers to submit customer Block or EFRP trades for a single end-client trading firm. The identity of the client must be referenced in the Account Description but the firm will not need to register themselves. These accounts may be used by any broker registered for ClearPort / CME Direct and permitted to submit trades on behalf of the account (see: Short Code Accounts).



5. Select **Step 2: Market Type Permissions**. At least one type is required.

For the list of Markets, select the **Risk Method** in which credit will be applied and **Access Type** (and <u>additional</u> options, if applicable).



- None: Submitting orders for this Market Type, including all Products is restricted.
- Specific: Requires selection of individual product permissions



Example: Selecting CME IRS requires additional selections:

- Credit Control Check limits denotes a CME Hosted limit structure. Limits are set in the <u>Deal</u> <u>Management System</u> (DMS), Autoclear automatically submit eligible trades to the CME Group for clearing, Force Claim A Clearing Member Explicit Claim method, in which the clearing member firm must consent to or refuse the trade through API messaging or the DMS.
- **Netting Algorithm** Analyzes orders that could be closed or reduced in notional value by offsetting trades between participants. The results of the netting run are then sent back to each participant for confirmation. If cleared, the central counterparty will execute the compression, including risk checks.

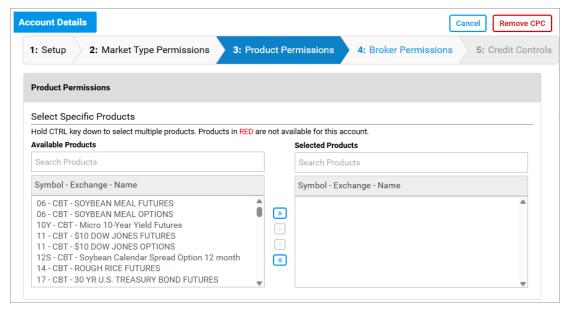
 Options:
- None
- CustomerID
- Standard
- Coupon Blending CustomerID performs selective coupon blending for trades that have a client entered CustomerID.
- Coupon Blending Standard In the clearing and settlement of IRS trades, compression via coupon blending reduces the number of individual listed trades (line items) and gross notional outstanding value of a portfolio while the net cash flow is maintained.
- -Custodian Specify the entity that holds assets for initial / variation margin.
- All: Enable order submission for all products in the selected market type.
 - **Note**: Specific and All, requires setting credit and long / short quantity limits; configured with the <u>Credit Controls</u> function.
- 6. (If Specific was selected for at least one product in the previous step) Select Step 3: Product Permissions.

From the Available Products, add product(s) the account will be permitted to trade.

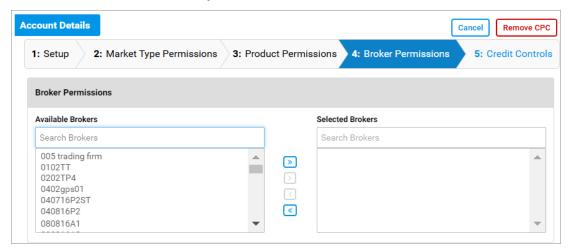


Note: To find a specific product, enter the symbol or name (including partial) in the search field.

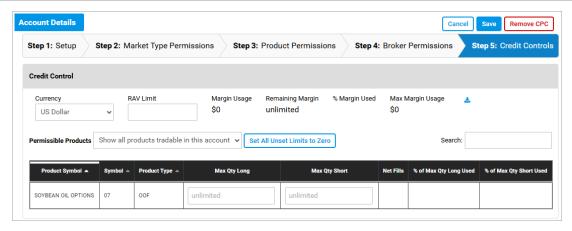
- Add
 ✓ Add All
 to the Selected Products list
- Remove: <a> / Remove All: <a> from the Selected Products list.



- 7. Select Step 4: Broker Permissions, then specify brokers authorized to operate this account.
 - Add \(\rightarrow \) / Add All \(\rightarrow \) to the Selected Brokers list
 - Remove: <a> / Remove All: <a> from the Selected Brokers list.



8. Select Step 5: Credit Controls, specify the Currency, RAV and product (long/short) limits.



- Currency select the currency denomination
- (Risk Asset Value) RAV Limit(required) The entered amount is denominated by millions in the selected currency.
- Max Qty Long / Short The default is unlimited. Pending entries are indicated by green.

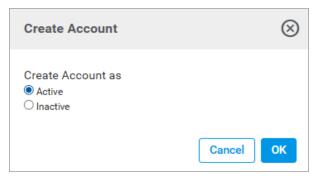


Additional Options

- Permissible Products Show all products tradable in this account / Show Products with individual limits Show products with specific limits.
- Set All Unset Limits to Zero: Enters 0 for all Max Qty Long / Max Qty Short fields not already entered.
- Search Filter to products that match the entered symbol and/or name.

Additional Information

- Margin Usage Amount (of the RAV limit) used.
- Remaining Margin Of the total available RAV limit.
- % Margin Used Margin Usage expressed as a percentage of RAV limit.
- Max Margin Usage Maximum utilization for the day. View available credit to determine if action is necessary.
- Export Max Margin Usage Report(♣) View historical Max Margin usage and end of day RAV limits.
- 9. Select **Save**, then finalize account creation by creating as **Active** or **Inactive** To activate the account later, **search** for the inactive account, go to the Account Settings page, then select **Activate**..



Additional Services: To enable additional services [CME Direct, ICC (CME Globex), Straight-Through Processing, Spot FX/Spot FX+], see Create New Account - Services.

Creating Trading Account / Trading Sub Account

Using the Accounts functionality, authorized users can create and manage Trading Accounts and Trading Sub-accounts associated with existing an account.

The following Clearing Account settings affect availability of Trading Sub-Account creation.

- Account Owner / LEI: Account owner (or LEI) must be authorized for ClearPort Clearing and / or CME Direct (CME Globex).
- Holding Account: Do not select, Trading Sub-Account creation will be unavailable.
- Delegated Intermediary: After sub-account creation, DI account cannot be unchecked.
 - **Selected**: To specify another trading account as the owner.
 - Not Selected: Trading Sub-Account trades will clear through the parent Trading Account (Owner).

Authorized users:

- Clearing Firm Account Administrator: Manages Clearing, Delegated intermediary (DI) and Customer (Parent) accounts.
- **Sub-Clearing Member Firm Account Administrator**: Manage execution firm ICC enabled accounts, when the registered clearing firm is guaranteed by a parent Clearing Member Firm.
- Trader Administrator: View, create and manage Delegated Intermediary accounts.

View sub-account account information, but cannot edit Sub-Account configuration or view relationship to delegated intermediary account.

• Trader Risk Administrator: View, create and edit Trading Sub-Accounts, including owner firm, broker firms, traders, services and status.

Users can only manage services and entitlements which they are also entitled.

Example: To assign CME ClearPort and CME Direct services, the administrator must be entitled for CME ClearPort and CME Direct.

Account Types:

- Delegated Intermediary (DI)
 - If a clearing account is designated as Delegated Intermediary (DI), specify the clearing member firm. Additional details are inherited from Trading Account Owner.
 - Managed by Clearing Firm Account Administrator, for a non-member clearing firm.
 - Trading sub accounts clear through this DI or other designated clearing account.
 - Can assign any CME ClearPort registered trading firm as the trading sub account owner.
 - Manages individual customer account level risk management.
 - DI (parent) accounts cannot be updated via Bulk upload.

• Customer (Parent) Account

- · Managed by Clearing Firm Account Administrator.
- · Designated as the Owner Firm.
- Once created, the Account Owner cannot be modified or deleted.
- Assigned services and entitlements apply to Trading Sub-Accounts.
- Enables Trading Sub Account level risk management.

Trading Sub Accounts

- Managed by Trading Firm Trader Risk Administrators.
- Viewable by the Trader Administrator and sub-account users.

 Owner firm, services are inherited from the clearing account owner and trading, which cannot be added or removed.

Creating Trading Account / Trading Sub-Account

Prior to creating a <u>Trading Sub-Account</u>, a Clearing Firm Administrator must create or assign a Trading Account [parent / delegated intermediary (DI)].

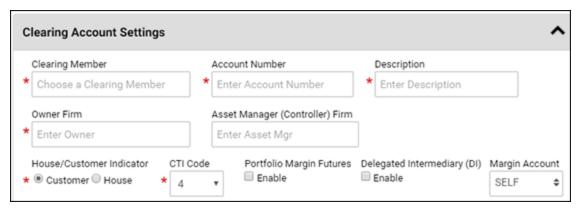
To verify trading account availability or enable an account as a trading account, conduct a <u>search</u>, Assign the Account Owner and Delegated Intermediary (if applicable).

A user with <u>Trader Risk Administrator</u> entitlements and access to the Trading (parent) account is authorized to create Trading Sub-Accounts.



To Create a Trading Sub-Account:

1. From the Accounts menu, select **Create New Account**.



2. On the account creation screen that appears, enter required details:

Services

ClearPort Clearing and / or CME direct (CME Globex)

Clearing Member

Clearing members assume financial and performance responsibility for all transactions executed through them and cleared by CME Clearing whether it is for the account of a customer, member, or their own account.

Account Number

The alphanumeric identifier for CME ClearPort or CME Globex accounts.

- CME ClearPort: Up to 20 characters.
- CME Globex: Up to 12 characters.

Do not use the following special characters in the first, second or last position.

@	at
%	norcent
70	percent
۸	caret
&	ampersand
(left parentheses
)	right parentheses
_	underscore

=	equal
{	left brace
}	right brace
[left bracket
]	right bracket
1	vertical bar
\	backslash
:	colon
;	semi colon
п	double quote
1	single quote
<	less than
>	greater than
,	comma
	period

Description

User specified identification details

Owner Firm

The Trading firm owner of this account .

Available if the clearing account is designated as Delegated Intermediary (DI); specify by the clearing member firm. Additional details are inherited from Trading Account Owner.

DI (parent) accounts cannot be updated via Bulk upload.

Owner's Primary Business Activity

Required

Firm LEI

Firm Legal Entity Identifier - Available at http://www.ciciutility.org.

Country of Origin

Appears when a dynamic (not registered) owner firm is specified

Asset Manager (Controller) Firm

Enter the name in the field; available choices appear based on the partially entered name.

For DI and sub-accounts: If an asset manager firm is assigned to the clearing account, trading sub-accounts cannot be created and the DI selection will not be available.

House / Customer Indicator

Indicates whether the account represents customer segregated funds or house funds.

CTI Code

CTI1 - An individual member trading for her or her own account, CTI2 - A member firm trading for its proprietary account, CTI3 - A member firm trading for another member, CTI4 - All others individuals. **Holding Account**

Do not select, Trading Sub-Account creation will be unavailable **Portfolio Margin Futures**

Enables the account for the CME Portfolio Margining program for futures.

Delegated Intermediary (DI)

Specified by the clearing member firm administrator.

Not Selected: The trading sub-account will clear through the parent Trading Account (Owner).

Selected: Specify another trading account as the owner

Margin Account

Enables multiple customer accounts to aggregate trades to calculate OTC trade cross-account margin offsets.

Associate accounts with clearing member / beneficial owner.

Designate the master / margin account for CME ClearPort enabled accounts.

To assign accounts to a master / margin account:

Accounts must be associated with the same Clearing Member Firm, beneficial owner.

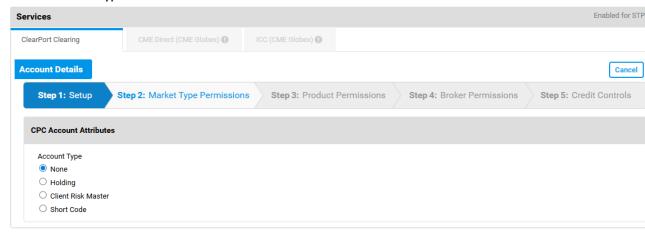
CME ClearPort service must be enabled for the accounts.

For non-CME ClearPort accounts, the margin account is **Self**, which assigns the same account number as the owner.

<u>Select Services</u>: Trading Account / Trading Sub-Account is only available for CME Direct (CME Globex) and CME ClearPort.

CME ClearPort

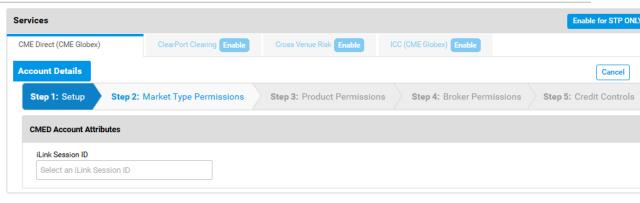
- a. From the Services pane (also known as Platform), select ClearPort Clearing.
- b. On the Services pane, specify CPC Account Attributes
 - Account Type: Select None.



c. To continue, select Market Type Permissions.

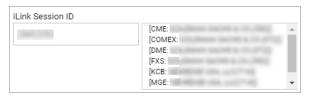
CME Direct (CME Globex)

- a. From the Services pane (also known as Platform), select CME Direct (CME Globex).
- b. On the **Services** pane, enter the iLink Session ID(s) to enable; as you enter matching IDs appear in a list, select to **Add**.



• **iLink Session ID**: Also known as SenderComp, which is obtained from <u>Global Account Management</u>.

This ID, used for in-house brokerage purposes, is submitted with trades, and associated with referenced Clearing Member firms.



Clearing Firms can assign a default iLink Session ID / SenderComp for in-house Broker entities. Available options:

- OK: Proceed without selecting an iLink Session ID.
- Cancel: Select an iLink Session ID, go back and select an iLink Session ID.

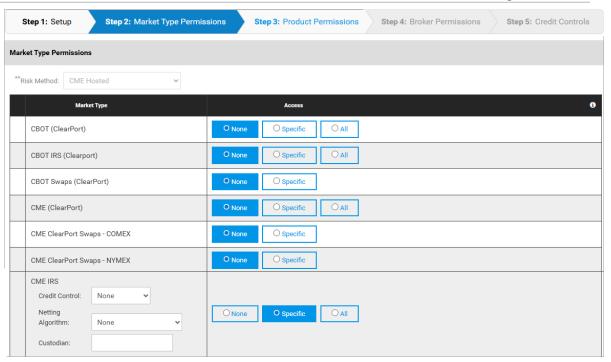
Note: If an iLink Session ID is not selected, a dialog appears and must be acknowledged before proceeding with account setup.

c. To continue, specify Market Type(s) and Product Permissions.

Specify Market Permissions:

After confirming Account <u>Settings</u> and <u>Services</u>, select **Market Types** and **Access**. Available options:

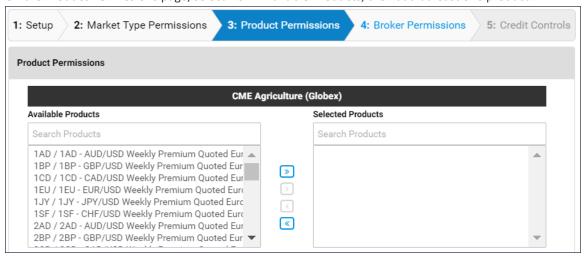
- None: Submitting orders for this Market Type, including all Products, is restricted.
- Specific: Requires selection of individual product permissions.
- All: Enable order submission for this market type and all products.



Note: Specific and All, requires credit and maximum long / short quantity limits; configured with the Credit Controls function.

Set Product Permissions:

On the Product Permissions page, select from Available Products, then add at least one product.



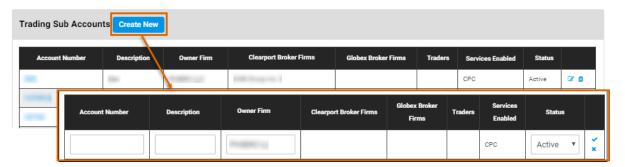
- Remove: < / Remove All: <

To find a specific product, enter the symbol or name in the search field; partial entries are accepted.

3. Select and Specify **Credit Controls**.

Creating Trading Sub-Account

- 4. Search and select the **Trading Account**.
- 5. From the Trading Sub Accounts pane, select **Create New** and enter required information.
 - · Account Number: required
 - Description: required
 - Owner Firm: Available if the clearing account is designated as DI (by the clearing member firm), otherwise, this is inherited from the Trading Account Owner.
 - Status: Active: Account is available immediately. Inactive: Resume or edit account details, before activating.



6. To finalize, select ✓.

Trade Type Restriction

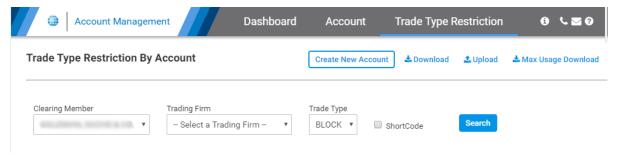
Use the Trade Type Restriction function to restrict CME ClearPort enabled accounts from submitting block trades. Additional functions:

- View account-level trade type restrictions.
- Block Trade: Privately negotiated futures, options or combination transaction that is permitted to be executed apart from the public auction market. Minimum order size requirements, vary according to product and order type. Only negotiated with futures, options on futures and CBOT swap trades; excludes all other basis trades.

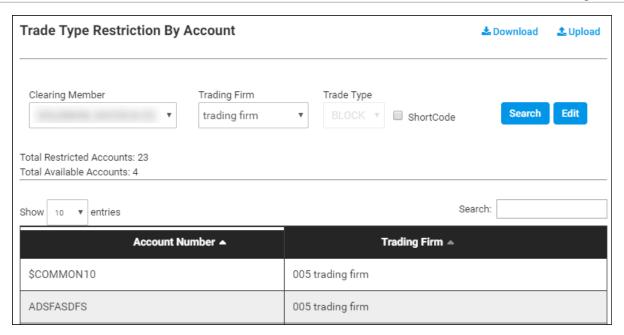


To view and manage Trade Type Restrictions:

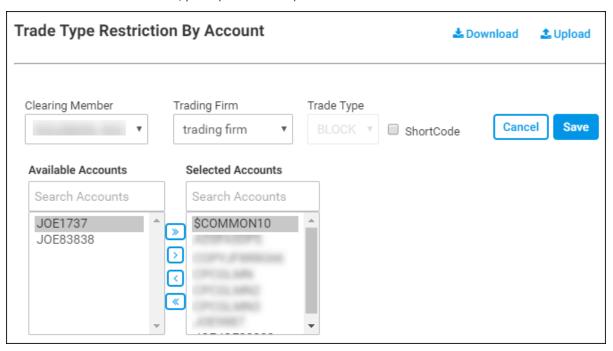
- 1. Select the Trade Type Restriction menu, then perform a **search**.
 - Clearing Member: View restricted accounts, organized by Account Numbers and Trading Firms.
 - Trading Firm: View and Edit restricted accounts for the Clearing Member and Trading Firm combination.
 - Trade Type: Block (default selection).
 - Short Code: Select to view only accounts flagged as short code accounts.



2. For the given Clearing Member / Trading Firm selection, a list of available accounts appear.



- 3. For selected Clearing Member / Trading Firm combination, select Edit.
- Select from available accounts to restrict (from submitting block trades), then select add(∑/≥) / remove(
 To select one or more accounts, press (CTRL + select) accounts.



5. To finalize, select Save.

Editing Accounts / Credit Controls

The Account Edit function is used by authorized firm administrators to edit information for an existing account or prior to account activation. Only accounts with full entitlements can edit, deactivate, delete, copy, bulk upload accounts.

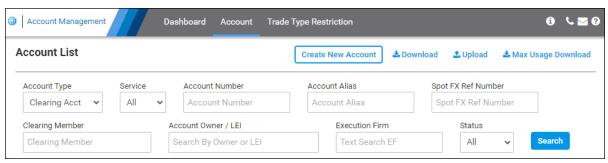


Example: A firm administrator entitled for CME ClearPort cannot edit CME Globex accounts.

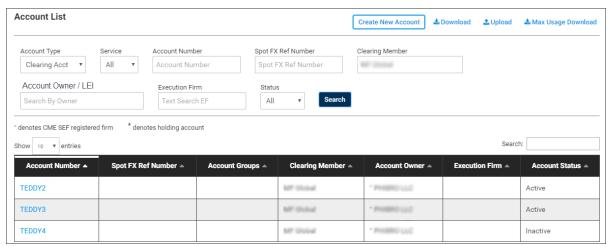


To edit account details:

1. Go to the **Accounts** page, then perform a search.



From the results that appear, select a blue hyperlinked account number.

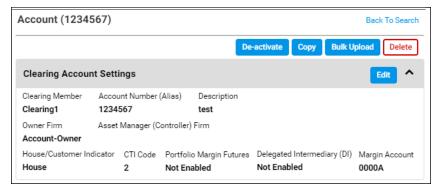


NOTE: If text is displayed in **red**, the assigned product or entity is no longer eligible due to assigned permissions. Contact Global Account Management for details.

- 2. From the page that appears, select **Edit**, then review the below instructions:
- Account Functions
- Clearing Account Settings
- Services
- Account Details
- Credit Controls
- Copy Account
- Uploading account limit updates
- Suspend / Allow Execution Firm Order Entry
- Save Updates

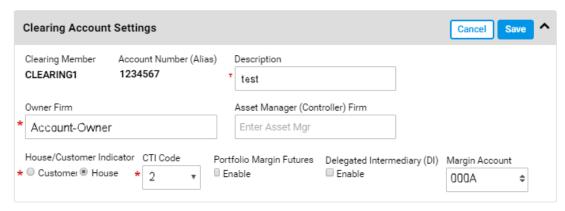
a. Account Functions

- Deactivate
- Copy
- · Bulk Upload
- Delete



b. Clearing / Execution / Trading Account Settings

For a list of field details, refer to Clearing Account Settings

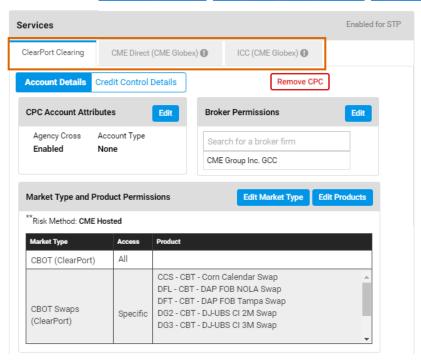


c. Services

- ClearPort Clearing: Account Attributes
- CME Direct: iLink Session ID, Broker Permissions, Market Type, Products
- ICC: Execution Firms, Credit Control

Configuration options include:

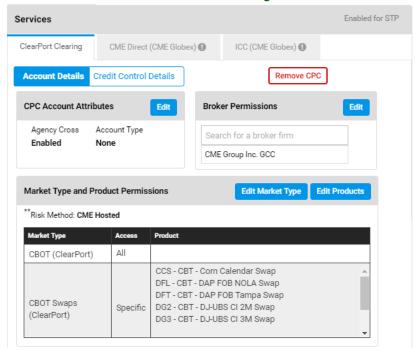
- **Removethe Service**: After confirming removal, the account will not be able to submit orders for markets and products.
- Edit Account Attributes / Details / Configuration: For details on editable fields, refer to Service (Platform) descriptions: ClearPort Clearing, CME Direct (CME Globex), ICC (CME Globex).



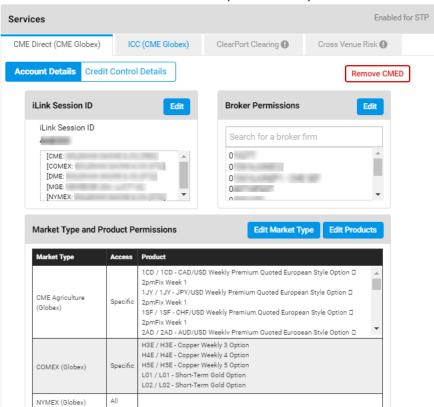
d. Account Details

- Account Attributes (ClearPort Clearing), iLink Sessions (CME Direct), Execution Firms (ICC)
- Broker Permissions
- Market Type
- Products

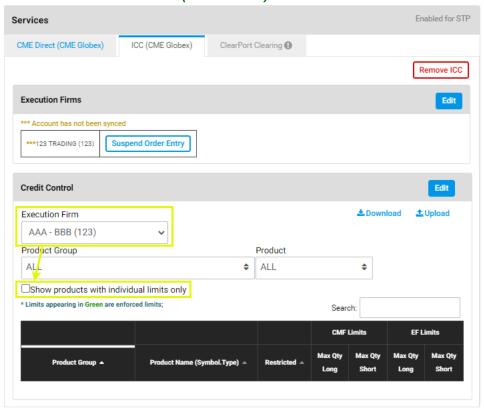
Account Details screen - ClearPort Clearing:



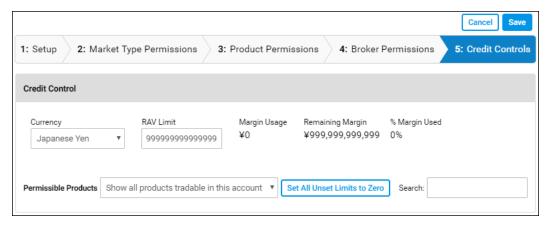
Account Details screen - CME Direct (CME Globex):



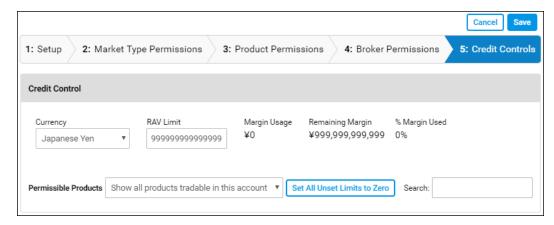
Account Details screen - ICC (CME Globex):



- e. Market Type Permissions: Goes to <u>Step 3 Market Type Permissions</u>.
- f. Product Permissions: Goes to Step 4 Product Permissions.
- g. Broker Permissions: Broker Permissions: ClearPort and CME Direct only.
 Goes to Step 4 Broker Permissions.
- h. Credit Control Details

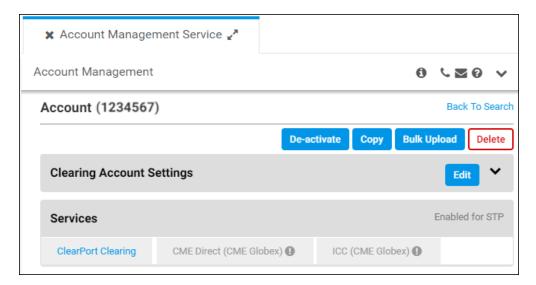


- Currency
- RAV (CME ClearPort) / Credit Limit (CME Globex)
- Permissible Products
- Limits



After editing each section, select Save. or select the next tab.
 Updates are effectively immediately.

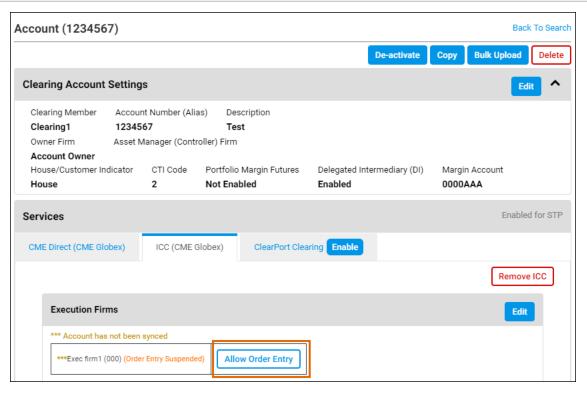
Additional Account functions:



• Copy: Copy current account configuration as the basis for a new account.



- <u>Creating Accounts via Upload</u>: Create multiple accounts via an upload process; using an existing account as a template.
- <u>Updating Account Limits via Upload</u>: Use the upload function to manage multiple product limits for an execution firm.
- <u>Suspend Order Entry / Allow Order Entry</u>: To Prevent / Allow order submission from the currently selected account, select an account, select the ICC (CME Globex) tab, then select **Suspend / Allow Order Entry**.



- Save / Finalize:
 - Activate: To activate the account later, search and select the inactive / pending account. From the Account Settings page, select Activate (
 Activate).
 - **Deactivate**: After confirming deactivation, the account cannot submit orders for previously authorized services.
 - **Delete**: From the Account Settings page, **Delete** the account, then confirm the selection.

Creating Accounts via Upload

In addition to creating individual <u>accounts</u>, authorized users can upload a file to create multiple CME Direct and / or ClearPort accounts based on an *existing* account.



To create accounts via file upload:

- 1. From the Account page, perform a clearing account <u>search</u>.
 - Clearing Account Search Criteria:

Account Type Clearing Account Trading Account

Service CME Direct (CME Globex) Inline Credit Controls [(ICC)(CME Globex)] CME ClearPort Cross Venue Risk CME Straight Through Processing (STP)

Account Number The alphanumeric identifier for ClearPort or Globex accounts. ClearPort account numbers may be up to 20 characters. Globex account numbers may be up to 12 characters.

Spot FX Ref Number Optional user specified external reference number

Clearing Member Registered member clearing firm

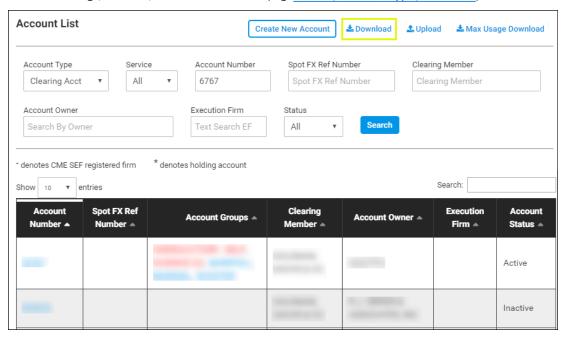
Account Owner Specify name or Legal Entity Identifier

Account Management Dashboard Account Trade Type Restriction Account List 🚣 Dow Create New Account Account Number Account Alias Account Type Service Clearing Acct ΑII Account Number Account Alias Clearing Member Account Owner / LEI Execution Firm Clearing Member Search By Owner or LEI Text Search EF

Execution Firm also known as, Trading FirmStatus Active / Inactive / All

2. On the Account(s) List search results page, select **Download** (*Download).

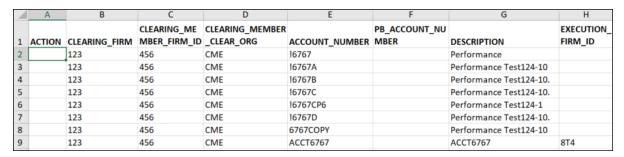
A list of accounts is downloaded to the default download directory. The MS Excel file (*Accounts.xlsx*) includes Clearing Account Settings, Services, and Account Details (e.g. Broker, Market Type, Products).



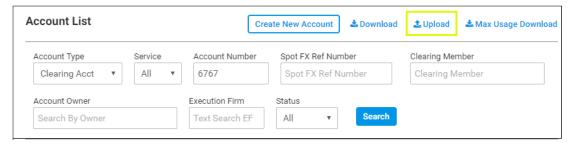
To update credit controls for one or more execution firms, select an ICC (CME Globex) account and execution firm.

For details, refer to Uploading ICC Limits / Credit Controls.

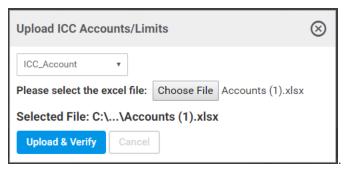
For the rows you intend to update, enter X in the ACTION column, then enter account details (new / existing).
 For detailed data descriptions, view the Account Settings.



Save the spreadsheet updates, then select Upload (≜Upload).



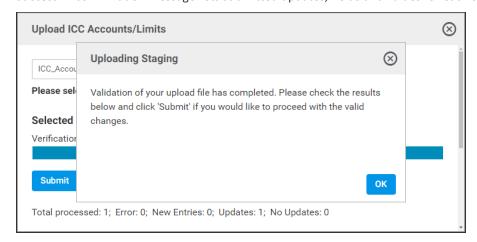
5. From the drop down menu, select ICC_Account, Choose a File, then select Upload & Verify.



Note: Uploads are limited to 20,000 records / rows per upload.

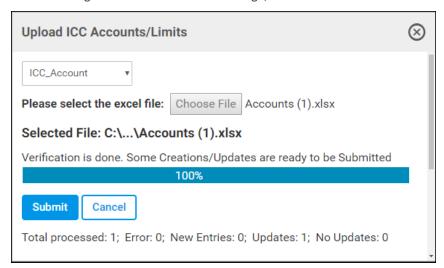
The uploaded file is evaluated and validation dialog appears:

• Success: A confirmation message lists submitted updates, fields and values for each spreadsheet row.

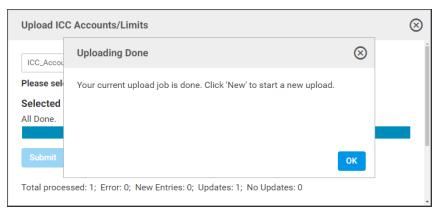


Failure: An error message appears, with recommended resolution.
 When uploading after an error, select New then choose the updated spreadsheet.

6. After receiving a successful validation message, select **Submit**.



Upon completion of the upload, select **OK**, then close the Upload dialog.



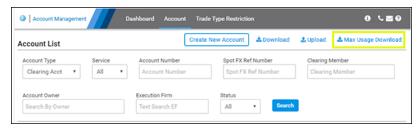
Max Usage Download

From the Accounts page, Select Max Usage to download a list of ICC accounts, for a given Execution firm, and the maximum credit usage within a specified date range.



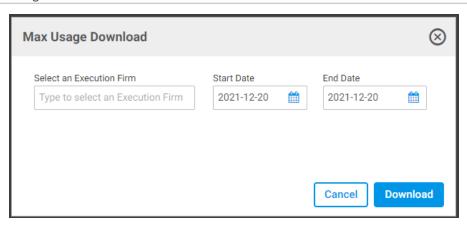
To view maximum usage:

- 1. Select the **Account** menu to go to the *Account List* page.
- 2. Select the Max Usage Download link.



3. On the window that appears, specify the Execution Firm and the Date range, then select Download.

The downloaded MS Excel compatible spreadsheet will display a list of ICC accounts for the execution firm and the maximum credit usage within the date range.



Updating ICC Account Limits via Upload

The following instructions illustrate the process to use the upload function to manage multiple product limits for an execution firm that uses ICC.

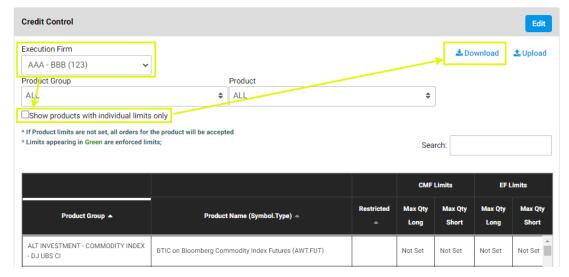


To update ICC Credit Controls via Upload:

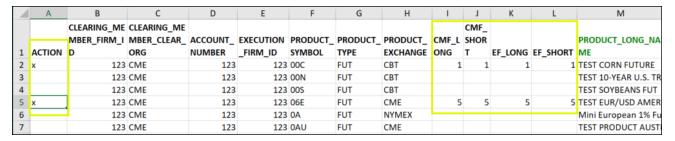
- 1. Perform an account search and select an ICC (CME Globex) enabled account,
- 2. From the Services pane, select ICC (CME Globex).



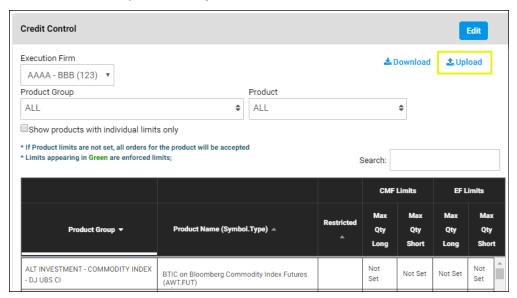
3. On the **Credit Control** pane that appears, select the **Execution Firm**, deselect **Show products with individual limits only**, then **Download** the spreadsheet.

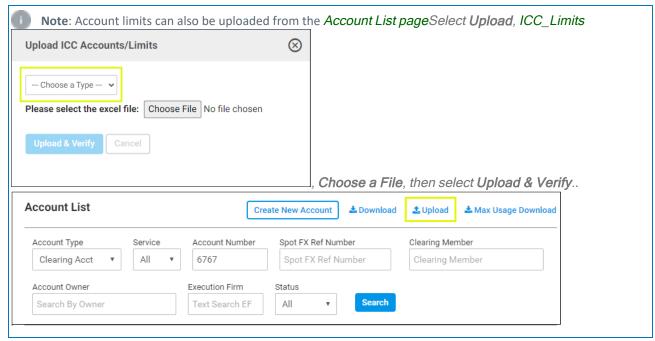


- 4. Open the downloaded spreadsheet (*account-number*-credit.xlsx), then update the maximum permissible **long / short limits**, for the Clearing Member Firm and/or Execution firm.
- 5. For all updated rows, enter **X** in the **Action** column, then **save** the updates.

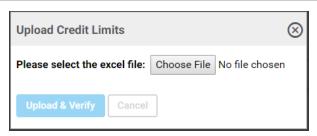


6. On the Credit Control pane, select Upload.





8. **Choose** the File, then select **Upload & Verify**.

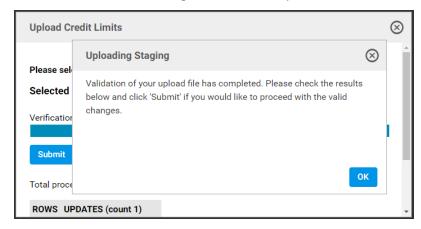




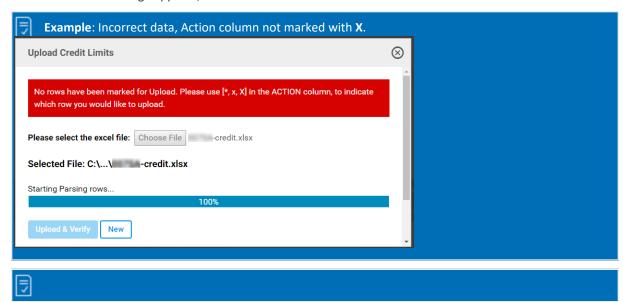
Note: Uploads are limited to 20,000 records / rows per upload.

The uploaded file is evaluated and validation dialog appears:

• Success: A confirmation message lists submitted updates, fields and values for each spreadsheet row.

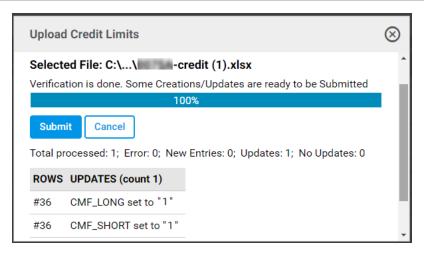


• Failure: An error message appears, with recommended resolution.



When uploading after an error, select **New** then choose the updated spreadsheet.

9. After receiving a successful validation message, select Submit, then select OK to close the upload dialog.



Managing ICC Credit Controls for Multiple Execution Firms

The following instructions illustrate the process to use the upload function to manage product limits for multiple execution firms, including blocking order submission for a given product.

Summary:

- a. Search and download clearing firm *accounts* list; step 1 2.
- b. Search for an account, then update execution firm (product) credit controls; step 3 5.
- c. Download account execution firm credit controls spreadsheet; to use as a template; step 6 7.
- d. Copy execution firm details (template) to new spreadsheet rows, step $\underline{8}$.
- e. On the new spreadsheet rows, update account and execution firm information (from clearing firm accounts spreadsheet); step 9.
- f. Upload and validate credit controls spreadsheet; step 10 12.

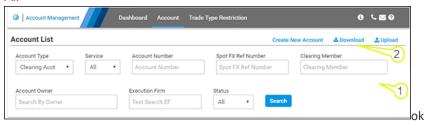


To manage multiple execution firm product limits, via upload:

From the Account page, perform a clearing account search, for ICC authorized accounts.

Clearing Account - Search Criteria:

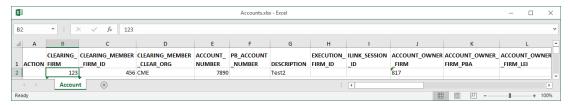
Account Type Clearing Account Trading Account, Service CME Direct (CME Globex) Inline Credit Controls [(ICC)(CME Globex)] CME ClearPort Cross Venue Risk CME Straight Through Processing (STP), Account Number The alphanumeric identifier for ClearPort or Globex accounts. ClearPort account numbers may be up to 14 characters. Globex account numbers may be up to 12 characters., Spot FX Ref Number Optional user specified external reference number, Clearing Member Registered member clearing firm, Account Owner Specify name or Legal Entity Identifier, Execution Firm also known as, Trading Firm, Status Active / Inactive / All



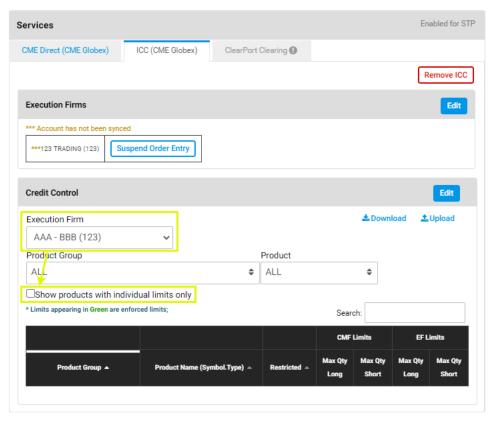
2. On the Accounts list that appears, select **Download** (Download).

A list of accounts, authorized for this clearing firm, is downloaded to the default download directory, as a MS Excel file (*Accounts.xlsx*).

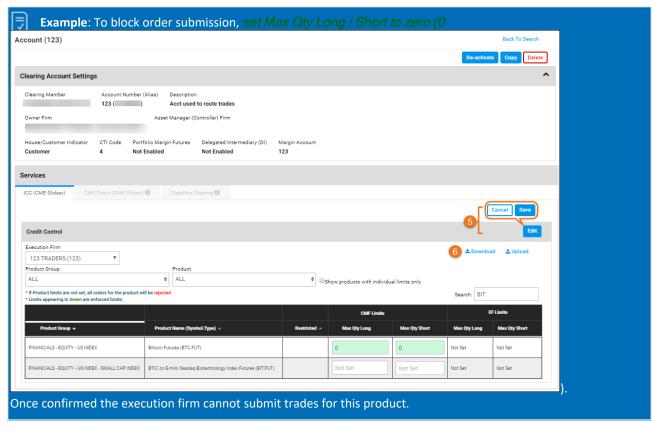
Save this file for step 9.



- 3. From the search results, select an Account Number, then select the Service ICC (CME Globex).
- 4. Select an **Execution Firm** to use as the basis for other firms, then deselect the checkbox, **Show products with individual limits only**.

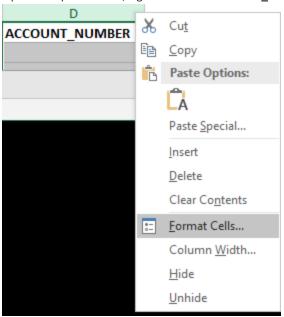


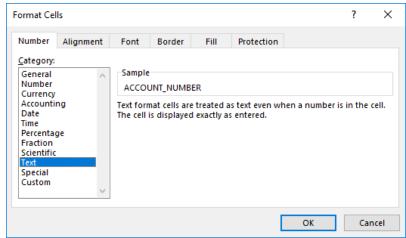
5. To restrict product(s), select **Edit**, modify the quantity, then select **Save**.

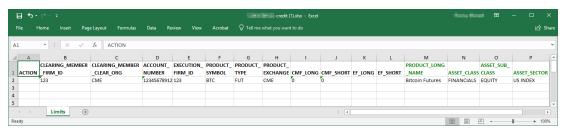


6. Download the credit control spreadsheet (account-num_credit.xlsx) for the selected account and execution firm.

7. Open the spreadsheet, right-click the ACCOUNT_NUMBER column and format to Text (Number tab).

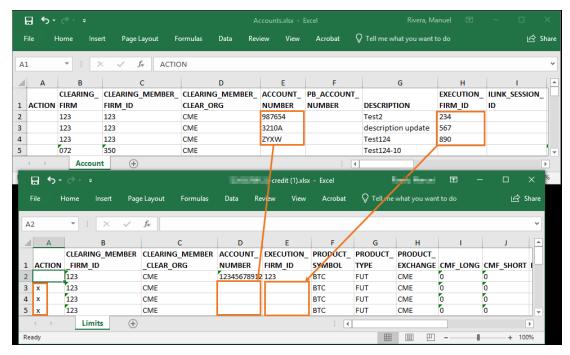






- 8. Copy the row then duplicate as many times as necessary for the accounts you want to restrict.
- 9. Open the Accounts.xlsx spreadsheet, copy the ACCOUNT_NUMBER and EXECUTION_FIRM_ID values to the account number fields of the acct-num_credit.xlsx spreadsheet.

In the **ACTION** column, enter X for all updated rows.



- 10. Save the spreadsheet updates, select Upload (♣ Upload), then select an upload type.
- 11. Select ChooseFile, browse to the file, then select Upload & Verify.



Note: Uploads are limited to 20,000 rows. For more than 20,000, perform additional uploads.

The uploaded file is evaluated and validation dialog appears:

- Success: A confirmation message lists submitted updates, fields and values for each spreadsheet row.
- Failure: An error message appears, with recommended resolution.

When uploading after an error, select **New** then choose the updated spreadsheet.

12. After receiving a successful validation message, select **Submit**.

Upon completion of the upload, select **OK**, then close the Upload dialog.

Copying Accounts

Using existing account details as a basis, authorized users can create new accounts, changing necessary details as required.



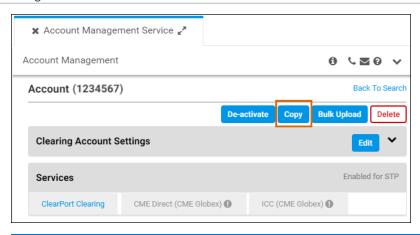
To copy an account:

- 1. Click the Accounts tab.
- 2. Search for the account to use as a basis.
- 3. From the accounts list, select the **Account** to copy from.



Note: Accounts enabled for ICC cannot be copied.

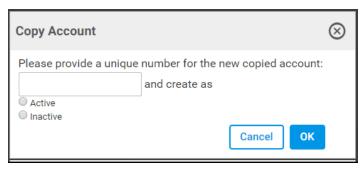
4. Review the Account Settings and Services (to ensure it is correct), then select Copy.





Note: Any assigned sub-accounts are not copied.

- 5. In the message that appears, enter a unique account number.
- 6. Select whether to create the account as **Active** or **Inactive**, then select OK.



- 7. On the newly created account settings page, review and update configuration details, including <u>Account Settings</u>, <u>Services</u>, <u>Broker Permissions</u>, <u>Market Type</u>, <u>Products</u>.
- 8. To finalize account setup and enable the account, **Save**individual sections, then select **Activate**

Credit Controls

Clearing Member and Execution firm administrators can use the Credit Controls function to manage CME Globex, CME ClearPort and CME Direct account level credit (preferred currency and maximum credit limit) and order submission (maximum permissible long / short) limits, for a product group and individual products.

Trader / Trader Risk Administrators can use Credit Controls to view and manage risk settings, including credit and long / short quantity limits.

Order handling:

- Credit limit checks utilize top of day trading activity; starts flat each trading day.
- Orders that are within limits are approved for execution.
- CME Globex trades, submitted using CME Direct, can be viewed in Firmsoft.
- Orders are rejected if they contain restricted products or requested quantities exceed limits.
- Margin rates and intra-commodity spread credits are used to determine credit usage, by product and type of trade.
- Completed orders are viewable in Front-End Clearing (FEC+).
- Options product limits are set independently of futures and are subject to overall credit limit.

Rejected order handling: An authorized clearing / execution firm administrator must increase the limit and / or configure additional products.

Available functions:

- Managing Account Credit Controls
- Calculating / Setting Option Limits
- Account Credit Control Models
- CME ClearPort Product Position Limit Checking

Managing Account Credit Controls



To manage account credit controls:

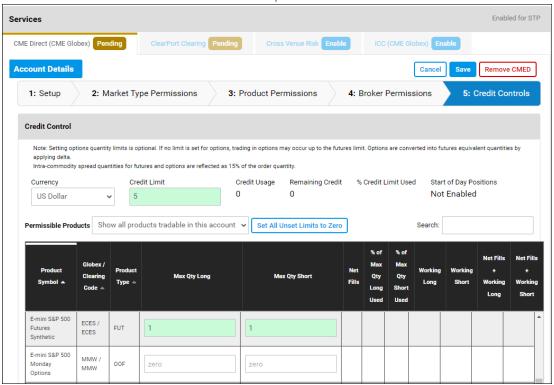
Users can specify the Currency, Credit Limit, Maximum Quantity Long / Short Limits (product quantity limits are not required for CME ClearPort).

- 1. After selecting a Service and specifying Markets, Products and Brokers, go to the Credit Controls page; available for CME Direct (CME Globex) and ClearPort Clearing.
- 2. Specify the Currency and Credit Limit (CME Direct) / RAV Limit (CME ClearPort) and product limits (Maximum quantity long / short).

Margin rates and intra-commodity spread credits are used to determine credit usage, remaining credit and percent used; by product and type of trade.

For option limits the system uses the (futures equivalent) most restrictive of credit), product permissions, long/short product limits.

CME Direct - Credit ControlsCredit Limit is required.



CME ClearPort - Credit Controls RAV Limit is required.



• Inline Credit Controls (ICC): (optional) Specify product level Clearing and / or Execution Firm position limits.



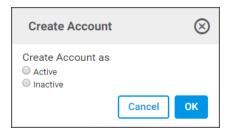
- 3. For the Permissible Products field, select from available options:
 - Show all products with unique limits: Filter the Product list to products that have user specified limits.
 - Show all products tradable in this account: View all authorized products, via Market Types <u>Available Products</u>.
- 4. For each product that will be authorized, specify the Max Qty Long / Max Qty Short.
 - Note: For Globex ICC only: Default value is Not Set, which uses the Globex Admin Policy settings to determine order entry and trading permission.

Admin Settings - Unset Limit Rule: When limits are *not set* (by either Clearing Member or Execution Firm) for the specified account, the account is limited to trading products within the overall firm Credit Limit.

Additional considerations: See also: Calculating option limits.

- 5. To finalize Credit Control settings, select Save.
- 6. (For new / pending accounts) On the account creation dialog that appears, select an account creation option: Create Account as:
 - Active: Finalize credit controls and activate the account. Additional configuration, for other applications / services, may be necessary.

Inactive: Finalize credit controls, but do not activate the account. Additional configuration can be performed or
the account configuration can be used as the basis for additional related accounts (via the <u>Account Copy</u> function).



Note: To activate the account later, search and select the inactive account. From the Account Settings page, select Activate.

Additional Options:

- Manage Spot FX Credit Controls
- Calculating / Setting Option Limits
- Account Credit Control Models
- Product Position Limit Checking
 - Futures Products
 - General
 - Option Products

Additional Resources:

- Globex Credit Controls Calculations Overview
- Managing ICC credit controls
- Calculating ICC (credit) limits
- CME Globex Credit Controls

Managing ICC Credit Controls / Product Limits

Clearing Member, Execution firm, Clearing Firm Account administrators can use the Credit Controls function to manage ICC (CME Globex) / Spot FX product level credit controls and maximum long / short order submission limits.

Trader / Trader Risk Administrators / can use Credit Controls to search and view risk settings, which includes credit and maximum permissible long / short quantity limits.

Order handling:

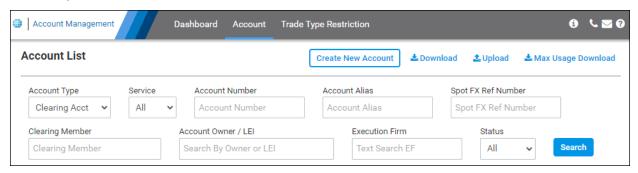
- Credit limit checks utilize top of day trading activity; starts flat each trading day.
- Orders that are within limits are approved for execution.
- Orders are rejected if they contain restricted products, requested quantities exceed limits, originate from unregistered accounts or for products with unset limits.
- · Options product limits are set independently of futures and are subject to overall credit limit.
- Active Delegated Intermediary (parent) accounts cannot be updated via upload.

Based on ICC Policy settings and product limits, rejected orders may require an authorized clearing / execution firm administrator to modify product limits or ICC policy settings.



To manage ICC account credit controls:

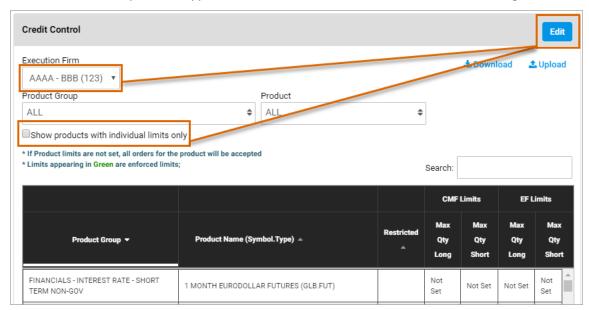
1. To set ICC product limits, search and select the account.



2. Select the ICC (CME Globex) tab then select Edit.

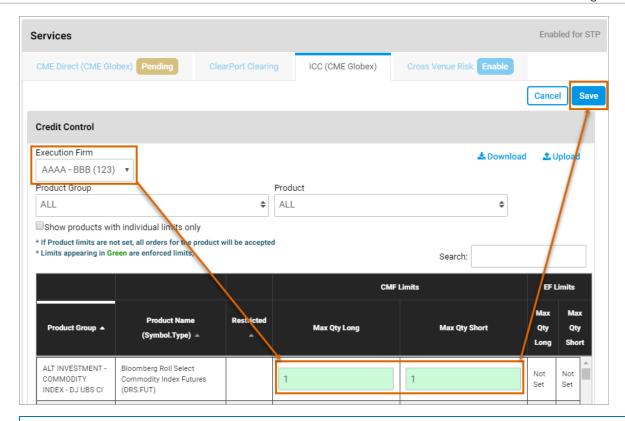


3. On the Credit Control pane that appears, select Edit, then select the Execution Firm to manage.



If individual product limits are set, results appear in the table below.

- 4. To view and manage additional products, deselect Show products with individual limits only.
- 5. For each product that will be authorized, specify the Max Qty Long / Max Qty Short.



For ICC (Globex ICC): Default Globex Admin Policy permits order submissions when product limits are Not Set. All accounts are limited to trading products within the overall firm Credit Limit; even when limits are not set.

6. To finalize ICC Credit Control settings, select Save.

Additional functions:

Managing Credit Controls

Managing execution firm product limits via upload

Calculating ICC Limit with examples

Calculating ICC Limits

Inline Credit Controls (ICC) support account-based, in-line, position limit controls for Globex orders, which are set by Clearing Member Firm (CMF), Legal Clearing Entity (LCE) and/or Execution Firm (EF) account administrators.

- LCE Account admins associate a clearing account established in Account Manager to an Execution Firm ID and identify a trading firm owner for the account.
- Accounts are created by Clearing Member Firm, LCE or EF. Separate limits may be managed by both LCE and EF admins, with the most restrictive limits prevailing.
- Only product-level position limits may be set on accounts.
- Separate limits may be set for futures and options. Option limits are delta-based values.
- E-mail notifications will be sent out for breaches of percentage threshold levels set by account administrators.
- An upload of ICC accounts from an Excel spreadsheet will be supported for limits management within CME Account Manager.

- Calculations are done at the product level (see below calculations and examples)
 - All incoming orders treated on a delta basis per product (1.0 or -1.0 delta = 1 contract)
 - Delta values for option instruments are fixed at the start of each trading day (no intraday changes)
 - The minimum delta value imposed on calls is 0.1 and on puts is -0.1

Note: For futures and options, spread orders with "balanced" intra-commodity spread quantity result in working long and short quantity equal to 15% of balanced quantity.

Example: An intra-commodity spread order to buy 100 CLZ18 – CLZ19 results in working long of 15 in CLZ18 and working short of 15 in CLZ19

Position Limit Calculations

Position limit calculations are described below:

- Every ICC Account starts the new trading day with a flat position.
- Positions are reset at 4:07 PM CT daily, including holidays (when trading is suspended).
- Accounts position limits are reset to zero, at 4:07 PM CT daily, including holidays and regular market closure.

Futures Max Long and Short Position Usage Calculations

Long Usage = Working Long + Traded Long - Traded Short

AND

Short Usage = Working Short + Traded Short - Traded Long

WHERE

- Working Long = Long quantity of open orders (in cleared contracts) + (Calendar Spread Order Quantities * 15%)
- Working Short = Short quantity of open orders (in cleared contracts) + (Calendar Spread Order Quantities * 15%)
- Calendar Spread Order Quantities = for each working spread order:

 $\sum_{S0=1}^{n} Min \text{ Long Quantity in a spread order, Short Quantity in the same spread order)}$ for the same Product



Note:

- Long and Short Quantities in spread are after application of the leg ratios and applicable contract multipliers.
- In the spread order, any residual leg quantity above the min quantity on the long or short side of a spread order is considered an outright long / short quantity and is added separately to the working long / short side.
- Only orders for futures contracts (i.e., futures or spreads) are considered for Working and Traded Quantities when testing against Futures Max Long or Max Short Position Limits.
- If Long Usage < 0, then Long Usage is displayed in CME Account Manager as 0. (Negative quantities are not displayed for Net Long Positions).
- If Short Usage <0, then Short Usage is displayed as 0. (Negative quantities are not displayed for Net Short Positions).

Options Max Long and Short Position Usage Calculations

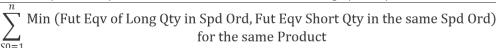
Long Usage = Working Long + Traded Long - Traded Short

AND

Short Usage = Working Short + Traded Short - Traded Long

WHERE

- Working Long = Futures Equivalence of (buy call/sell put) open orders (in cleared contracts) + (Futures Equivalence of Option Calendar Spread Order Quantities * 15%)
- Working Short = Futures Equivalence of (sell call/buy put) open orders (in cleared contracts) + (Futures Equivalence of Option Calendar Spread Order Quantities * 15%)
- Option Cal Spread Order Quantities = for each working option spread order:





Note:

- Long and Short Quantity in spread are after application of the leg ratios and applicable contact multipliers.
- In the option cal spread order, any residual quantity (measured in Futures Equivalence) above the min quantity on the long or short side of a spread order is considered outright long / short quantity and is added separately to the working long / short side.
- Only orders for option contracts are considered for Working and Traded Quantities.
- If Long Usage < 0, then Long Usage is displayed as 0 in CME Account Manager. (Negative quantities are not displayed for Net Long Positions).
- If Short Usage <0, then Short Usage is displayed as 0. (Negative quantities are not displayed for Net Short Positions).

Calculation Examples

Available examples:

Risk Control Algorithm

Crude Oil Futures

Crude Oil Options

Futures Outright with Default Contact Multiplier

Futures Outright with Contract Multiplier not Equal to 1

Futures Spread

Option Outright

Options Spread

Risk Control Algorithm

The risk control algorithm tracks the order size for each account at the product code level based on:

- Long Usage = Working Long + Traded Long Traded Short
- Short Usage = Working Short + Traded Short Traded Long

The available order size will be determined as follows:

- Long Order Size = Max Long Limit Long Usage
- Short Order Size = Max Short Limit Short Usage

The traded long and traded short positions are reset back to zero at the end of each day upon market close.

If the running long or short usage values for a product are such that it becomes less than zero, then the negative position will be used in the calculation and stored by Account Manager, but Account Manager will display a zero for Long or Short negative usage value.

The risk control algorithm always breaks spreads down into legs and acts upon the legs of a spread, not the spread instrument itself.

The security type and spread type figure prominently in how the risk control algorithm tabulates usage values:

*Delta is an option related statistic which is based on the price movements of the underlying future contract and plays an important part in determining the working position for options. Delta is used as a "hedge ratio" to determine the futures equivalence of the option order. It is the futures equivalence of the option order that the Option Position Limits will apply to.

The value of the option delta is considered to one decimal place, such that the minimum delta applicable will be 0.1 and the maximum will be 1. For example, a delta value such as 0.4985 is rounded up to 0.5.

Note: Delta values are determined at the start of each trading session and are not updated subsequent to the initial determination.

Crude Oil (CL) Futures Example

Action	Long Usage	Short Usage	Working Long	Working Short	Trade Long	Trade Short
Buy Order 15 CLF18	15 (15+0-0)	0 (0+0-0)	15	0	0	0
Buy Order Trades 5 CLF18	15 (10+5–0)	-5 (0+0–5)	10	0	5	0
Sell Order 100 CLZ19	15 (10+5-0)	95 (100+0–5)	10	100	5	0
Buy Order 50 CLH18 – CLM18 (calendar spread)	22.5 (17.5+5+0)	102.5 (107.5+0-5)	17.5 (10+ (50*.15))	107.5 (100+ (50*.15))	5	0
Buy spread order trades 20 CLH18- CLM18	19.5 (14.5+25-20)	102.5 (104.5+20-25)	14.5 (10+(30*.15))	104.5 (100+ (30*.15))	25	20

Crude Oil (LO) Options Example

Action	Long Usage	Short Usage	Working Long	Working Short	Trade Long	Trade Short
Buy Order 30 LOF18 49C (0.50 delta)	15 = ((30*.50)*0-0)	0 = (0+0-0)	15 = (30*.50)	0	0	0
Buy Order Trades 10 LOF18 49C	15 = ((20*.5)+ (10*5)-0)	-5 = (0+0-(10*5))	10 = (20*.5)	0	5 = (10*.5)	0
Buy Order 500 LOZ19 45P (-0.20 delta)	15 = (10+5-0)	95 = (100+0– 5)	10	100 = (500*.20)	5	0
UDS Order B 200 LOG18 55C (0.25 delta) S 50 LOG18 30C (1.0 delta)	22.5 = (17.5+5+0)	102.5 = (107.5+0-5)	17.5 = (10+ (200*0.25)*.15)	107.5 (100+ (50*.15))	5	0
Buy spread order trades 80 LOG18 55C (0.25 delta) S 20 LOG18 30C (1.0 delta)	19.5 = (14.5+25-20)	99.5 = (104.5+20- 25)	14.5 = (10+ (120*.25)*.15)	104.5 (100+ (30*.15))	25 = (5+ (80*.25))	20 = (20*1.0)

Futures Outright with Default Contact Multiplier

The futures outright calculation is based on order quantity and contract multiplier (Tag 231 in the 35=d security definition). Where available the contract multiplier will be used otherwise it will just default to 1.

Note: The contract multiplier is used to converted traded quantity to cleared quantity.							
Instrument	GEZ1						
Contract Multiplier	1						
Max Long Limit (GE-FUT)	100						
Max Short Limit (GE-FUT)	100						

Example

Message Flow	Working Long	Working Short	Traded Long	Traded Short	Net Long Usage	Net Short Usage	Avail Max Long Limit	Avail Max Short Limit	Comments
Buy New Order With Quantity of 10	10			-	10	-	90	100	WL = 10 X 1 = 10 NL = 10 + 0 - 0 = 10 Avail Max Long Limit = Limit - (Working Long + Traded Long - Traded Short) 100 - (10 + 0 - 0) = 90 Avail Max Short Limit = Limit - (Working Short + Traded Short - Traded Long) 100 - (0 + 0 - 0) = 100
Cancel Replace to Quantity of 20	20		-	-	20	-	80	100	WL = 20 X 1 = 20 NL = 20 + 0 - 0 = 20 Avail Max Long Limit = Limit - (Working Long + Traded Long - Traded Short) 100 - (20 + 0 - 0) = 80 Avail Max Short Limit = Limit - (Working Short + Traded Short - Traded Long) 100 - (0 + 0 - 0) = 100
Complete Fill for Quantity of 20	0	-	20	-	20	(-20)	80	120	NL = 0 + 20 - 0 = 20 $NS = 0 + 0 - 20 = -20$ $Avail Max Long$ $Limit = Limit - (Working Long + 20)$

 count ivianage	mem service	•							
									Traded Long - Traded Short) 100 - (0 + 20 - 0) = 80 Avail Max Short Limit = Limit - (Working Short + Traded Short - Traded Long) 100 - (0 + 0 - 20) = 120
Sell New Order With Quantity of 10	0	10	20		20	(-10)	80	110	WS = 10 x 1 = 10 NS = 10 + 0 - 20 = - 10 Avail Max Long Limit = Limit - (Working Long + Traded Long - Traded Short) 100 - (0 + 20 - 0) = 80 Avail Max Short Limit = Limit - (Working Short + Traded Short - Traded Long) 100 - (10 + 0 - 20) = 110
Cancel Replace to Quantity of 20	0	20	20	_	20	0	80	100	WS = 20 x 1 = 20 NS = 20 + 0 - 20 = 0 Avail Max Long Limit = Limit - (Working Long + Traded Long - Traded Short) 100 - (0 + 20 - 0) = 80 Avail Max Short Limit = Limit - (Working Short + Traded Short - Traded Long) 100 - (20 + 0 - 20) = 100
Complete Fill for Quantity of 20	0	0	20	20	0	0	100	100	NL = 0 + 20 - 20 = 0 NS = 0 + 20 - 20 = 0 Avail Max Long Limit = Limit - (Working Long + Traded Long - Traded Short) 100 - (0 + 20 - 20) = 100 Avail Max Short Limit = Limit - (Working Short +

	Traded Short - Traded Long) 100 - (0 + 20 - 20) = 100 Traded short increases acceptable long order size
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Futures Outright with Contract Multiplier not Equal to 1(CMED 50MW Power)

Futures outright calculations are based on order quantity and contract multiplier (Number of deliverable units per instrument, for example, number of peak days or calendar days in maturity month). Where available the contract multiplier will be used; otherwise will default to 1.

Instrument	J4LZ8
Contract Multiplier	200
Max Long Limit (J4L-FUT)	20,000
Max Short Limit (J4L-FUT)	20,000

Example

Message Flow	Working Long	Working Short	Traded Long	Traded Short	Net Long Usage	Net Short Usage	Avail Max Long Limit	Avail Max Short Limit	Comments
Buy New Order With Quantity of 10	2000	-	-	-	2000	-	18000	20000	WL = 10 X 200 = 2,000 NL = Working Long + Traded Long - Traded Short = 2,000 + 0 - 0 = 2,000 Avail Max Long Limit = 20,000 - 2,000 = 18,000
Cancel Replace to Quantity of 20	4000	-	-	-	4000	-	16000	20000	WL = 20 X 200 = 4000 NL = 4,000 + 0 - 0 = 4,000 Avail Max Long Limit = 20,000 - 4,000 = 16,000
Complete Fill for Quantity of 20	0	-	4000	-	4000	(-4000)	16000	24000	NL = 0 + 4,000 - 0 = 4,000 NS = 0 + 0 - 4,000 = -4,000 Avail Max Long Limit = 20,000 - 4,000 = 16,000 Avail Max Short Limit = 20,000-(- 4,000) = 24,000

Sell New Order With Quantity of 10	0	2000	4000	-	4000	(-2000)	16000	22000	WS = 10 x 200 = 2,000 NS = 2,000 + 0 - 4,000 = -2,000 Avail Max Short Limit = 20,000 - (-2,000) = 22,000
Cancel Replace to Quantity of 20	0	4000	4000	-	4000	0	16000	20000	WS = 20 x 200 = 4,000 NS = 4,000 + 0 - 4,000 = 0 Avail Max Short Limit = 20,000 - 0 = 20,000
Complete Fill for Quantity of 20	0	0	4000	4000	0	0	20000	20000	NL = 0 + 4,000 - 4,000 = 0 NS = 0 + 4,000 - 4,000 = 0 Avail Max Long Limit = 20,000 - 0 = 20,000 Avail Max Short Limit = 20,000 - 0 = 20,000 Traded short increases available long order size

Futures Spread

Futures spread calculations are based on the trade legs only such that:

- The effective side of each leg is derived based on spread side x leg side.
- Buy and sell legs belonging to the same product code could offset each other to the extent possible after taking into account their respective leg ratios.
- The working quantity only (not traded) are further offset by a spread contribution factor such that a configurable value such as 15% will be multiplied with the leg ratio which could be offset between both sides.
- If spread legs belong to a single side or if spread legs belong to different product codes, then no spread contribution factor will be applicable.
- The buy side working quantity for all spread legs belonging to the same product code = total buy leg ratio total sell leg ratio (if negative then zero) + spread contribution factor (15% of leg ratio common to both buy & sell sides) x spread quantity.
- The sell side working position for all spread legs belonging to the same product code = total sell leg ratio total buy leg ratio (if negative then zero) + spread contribution factor (15% of leg ratio common to both buy & sell sides) x spread quantity.
- The buy side traded position for all spread legs belonging to the same product group = total buy leg ratio x traded quantity.
- The sell side traded position for all spread legs belonging to the same product group = total sell leg ratio x traded

quantity.

• Product code is uniquely qualified with a combination of product code + security type + exchange.

Instrument	GE:BF M8-U8-Z8
Max Long Limit (GE - FUT	100
Max Short Limit (GE-FUT)	100
Spread Contribution Factor	15%

Leg Instrument	Leg Side	Leg Ratio	Product Code
GEM8	Buy	1	GE
GEU8	Sell	2	GE
GEZ8	Buy	1	GE

Example: Spread contribution factor: 15% of 2 = 0.3 since buy leg ratio (2) and sell leg ratio (2) are the same and offset each other. Traded Traded Net Avail Avail Message Flow Working Working Net Comments Long Short Long Short Long Short Max Max Usage Long Short Usage Limit Limit 3 3 97 Buy New Order 3 97 Working Long With Quantity = 2 - 2 + 0.3 xof 10 10 = 3 **Working Short** = 2 - 2 + 0.3 x10 = 3 94 94 Cancel Replace 6 Working Long = 2 - 2 + 0.3 xto Quantity of 20 20 = 6 **Working Short** = 2 - 2 + 0.3 x20 = 6 0 100 100 Complete Fill 0 40 40 0 0 NL = WL(0) +for Quantity of TL(40) - TS20 (40) = 0NS = WS(0) +TS (40) - TL (40) = 03 3 40 40 3 3 97 97 Sell New Order Working Long With Quantity = 2 - 2 + 0.3 xof 10 10 = 3 **Working Short** = 2 - 2 + 0.3 x10 = 3 NL = WL(3) +TL(40) - TS

									(40) = 3 NS = WS (3) + TS (40) – TL (40) = 3
Cancel Replace to Quantity of 20	6	6	40	40	6	6	94	94	Working Long = 2 - 2 + 0.3 x 20 = 6 Working Short = 2 - 2 + 0.3 x 20 = 6 NL = WL (6) + TL (40) - TS (40) = 6 NS = WS (6) + TS (40) - TL (40) = 6
Complete Fill for Quantity of 20	0	0	80	80	0	0	100	100	NL = WL (0) + TL (80) - TS (80) = 0 NS = WS (0) + TS (80) - TL (80) = 0

Option Outright

Option outright calculation is based on order quantity and delta:

- The delta value for an option is determined at the beginning of the trading session and it will remain constant for the entire trading session. Orders entered during that session will utilize this "daily" delta value and will not change during the session.
- At the beginning of the next trading session, delta values will be refreshed and any new order and old "Good Till" orders still active, will utilize the new delta value.
- Position limits on options on combination (OOC) underliers are treated independently from option on futures involving the same product. For example:
 - LO position limits control the delta equivalence of the WTI outright underlier
 - WAY position limits control the delta equivalence of the WTI one-month calendar spread
- If there is no delta available for an option, a default value of 1 will be used.

Effective side is based on the order size as well as if the option instrument is a call or put since a put option results in the side being flipped.

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Instrument	GEU0 C9950
Delta	0.5
Max Long Limit (GE – OPT)	100
Max Short Limit (GE – OPT)	100

Example									
Message	Working	Working	Traded	Traded	Net	Net	Avail	Avail	Comments
Flow	Long	Short	Long	Short	Long	Short	Max	Max	

									Te management der me
					Usage	Usage	Long Limit	Short Limit	
Buy New Order With Quantity of 10	5	-	-	-	5	-	95	100	Working Long = 10 x 0.5 = 5
Cancel Replace to Quantity of 20	10	-	-	-	10	-	90	100	Working Long = 20 x 0.5 = 10
Complete Fill for Quantity of 20	0	-	10	-	10	(-10)	90	110	Traded Long = 20 x 0.5 = 10
Sell New Order With Quantity of 10	0	5	10	-	10	(-5)	90	105	Working Short = 10 x 0.5 = 5 Avail Max Short Limit = 100 - (5 + 0 - 10) = 105
Cancel Replace to Quantity of 20	0	10	10	-	10	0	90	100	Working Short = 20 x 0.5 = 10 Avail Max Short Limit = 100 - (10 + 0 - 10) = 100
Complete Fill for Quantity of 20	0	0	10	10	0	0	100	100	Traded short increases available long order size

Options Spread

Options spread calculation is based on its legs only such that:

- The effective side of each leg is derived based on spread side x leg side, depending on whether the option leg is a put or call.
- The effective leg ratio of each leg needs to be determined by multiplying its leg ratio with its corresponding delta. If the delta is not available then the effective leg ratio will default to 1.
- Buy and sell legs belonging to the same product code may offset each other after taking into account their respective leg ratios.
- The working quantity only (not traded) are further offset by a spread contribution factor such that a configurable value such as 15% will be multiplied with the leg ratio which could be offset between both sides.
- If spread legs belong to a single side or if spread legs belong to different product codes then no spread contribution factor will be applicable between them.
- The buy side working quantity for all spread legs belonging to the same product code = total buy effective leg ratio total sell effective leg ratio (if negative then zero) + spread contribution factor (15% of effective leg ratio common to both buy & sell sides) x spread quantity
- The sell side working quantity for all spread legs belonging to the same product code = total sell effective leg ratio total buy effective leg ratio (if negative then zero) + spread contribution factor (15% of effective leg ratio common to both buy & sell sides) x spread quantity

- The buy side traded position for all spread legs belonging to the same product group = total buy effective leg ratio x traded quantity
- The sell side traded position for all spread legs belonging to the same product group = total sell effective leg ratio x traded quantity

• Product code is uniquely qualified with a combination of product code + security type + exchange

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Instrument	UD:U\$:ST 0104931538
Max Long Size (GE-OPT)	100
Max Short Size (GE-OPT)	100
Spread Contribution Factor	15%

Leg Instrument	Leg Side	Leg Ratio	Product Code	Delta
GEU0 C9950	Buy	2	GE	0.5
GEU0 P9962	Buy	3	GE	0.25

Example: Spread contribution factor -- 15% of 0.75 = 0.1125 since buy effective leg ratio (2 x 0.5 = 1) and sell (buy put leg) effective leg ratio (3 x 0.25 = 0.75) can offset each other by up to 0.75 since this is the effective leg ratio common to both sides.

Message Flow	Working Long	Working Short	Traded Long	Traded Short	Net Long Usage	Net Short Usage	Avail Max Long Limit	Avail Max Short Limit	Comments
Buy New Order With Quantity of 10	3.625	1.125	-	-	3.625	1.125	96.375	98.875	Working Long = (1 - 0.75 + 0.1125) x 10 = 3.625 Working Short = (0.75 - 1 (0) + 0.1125) x 10 = 1.125
Cancel Replace to Quantity of 20	7.25	2.25	-	-	7.25	2.25	92.75	97.75	Working Long = $(1 - 0.75 + 0.1125) \times 20 = 7.25$ Working Short = $(0.75 - 1 (0) + 0.1125) \times 20 = 2.25$
Complete Fill for Quantity of 20	0	0	20	15	5	(-5)	95	105	Traded Long = 20 x 1 Traded Short = 20 x 0.75 Avail Max Short Limit = 100 - (0 + 15 - 20) = 105

Sell New Order With Quantity of 10	1.125	3.625	20	15	6.125	(-1.375)	93.875	101.375	Working Long = (0.75 – 1 (0) + 0.1125) x 10 = 1.125 (sell put leg becomes buy) Working Short = (1 – 0.75 + 0.1125) x 10 = 3.625 Avail Max Long Limit = 100 - (1.125 + 20 - 15) = 93.875 Avail Max Short Limit = 100 - (3.625 + 15 - 20) = 101.375
Cancel Replace to Quantity of 20	2.25	7.25	20	15	7.25	2.25	92.75	97.75	Working Long = (0.75 - 1 (0) + 0.1125) x 20 = 2.25 (sell put leg becomes buy) Working Short = (1 - 0.75 + 0.1125) x 20 = 7.25
Complete Fill for Quantity of 20	0	0	35	35	0	0	100	100	Traded Long = 20 x 0.75 Traded Short = 20 x 1 Traded short increases available long order size. Traded long increases available short order size.

Suspending / Allowing Order Entry

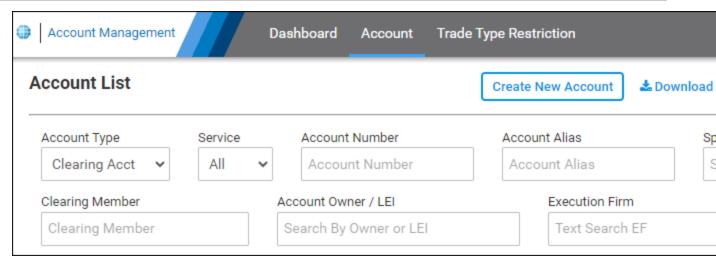
Using the Account Credit Controls - Suspend Order entry function, authorized Clearing Member and Execution firm administrators can restrict the ability of execution firms to enter or modify orders. Suspended accounts can still cancel orders and preset credit and product trading limits are not affected.

When the reason for order suspension is resolved, authorized users can Allow order entry and execution firm order entry can resume.

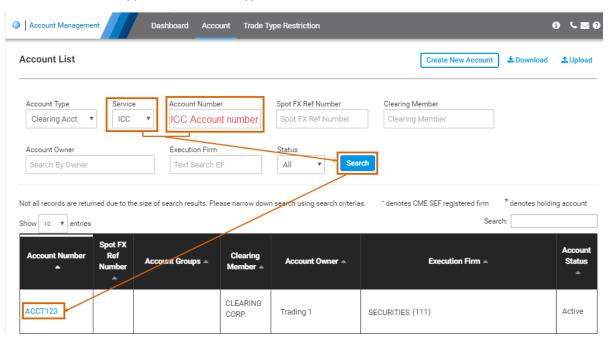


To suspend execution firm order entry:

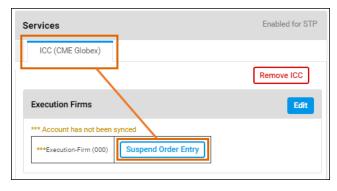
1. Select the Account menu, then perform a search for the account associated with the execution firm to suspend.



2. From the results that appear, select a blue hyperlinked account number.



3. Select the ICC (CME Globex) tab then select, Suspend Order Entry, for the firm you want to restrict.



4. On the confirmation dialog that appears, select **OK**.



To allow order entry:

- 1. After resolving the reason for suspension, repeat steps 1-3, then select Allow Order Entry.
 - Perform a search for the account.
 - Select the Account.
 - Select ICC (CME Globex) tab.
 - From Execution Firms pane, select Allow Order Entry.



2. On the dialog that appears, select OK.

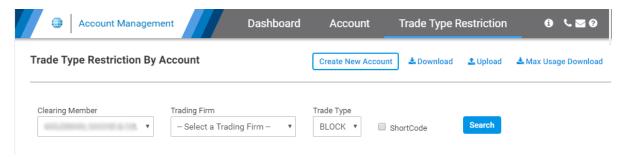
Trade Type Restriction

Use the Trade Type Restriction function to restrict CME ClearPort enabled accounts from submitting block trades. Additional functions:

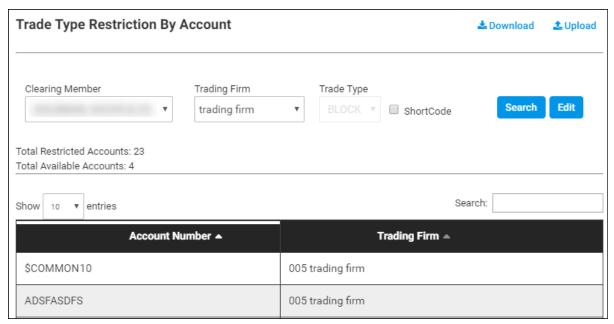
- View account-level trade type restrictions.
- Block Trade: Privately negotiated futures, options or combination transaction that is permitted to be executed apart from the public auction market. Minimum order size requirements, vary according to product and order type. Only negotiated with futures, options on futures and CBOT swap trades; excludes all other basis trades.

To view and manage Trade Type Restrictions:

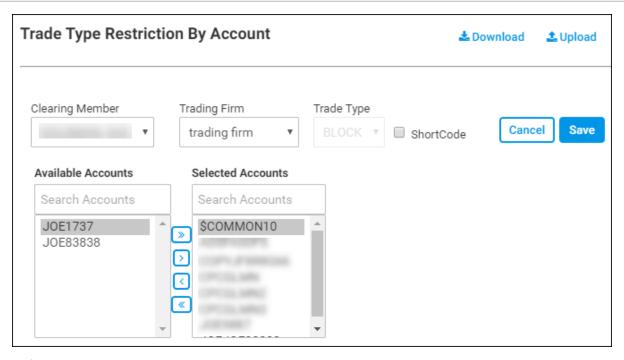
- 1. Select the Trade Type Restriction menu, then perform a **search**.
 - Clearing Member: View restricted accounts, organized by Account Numbers and Trading Firms.
 - Trading Firm: View and Edit restricted accounts for the Clearing Member and Trading Firm combination.
 - Trade Type: Block (default selection).
 - **Short Code**: Select to view only accounts flagged as short code accounts.



2. For the given Clearing Member / Trading Firm selection, a list of available accounts appear.



- 3. For selected Clearing Member / Trading Firm combination, select **Edit**.
- Select from available accounts to restrict (from submitting block trades), then select add()/≥) / remove(
 To select one or more accounts, press (CTRL + select) accounts.

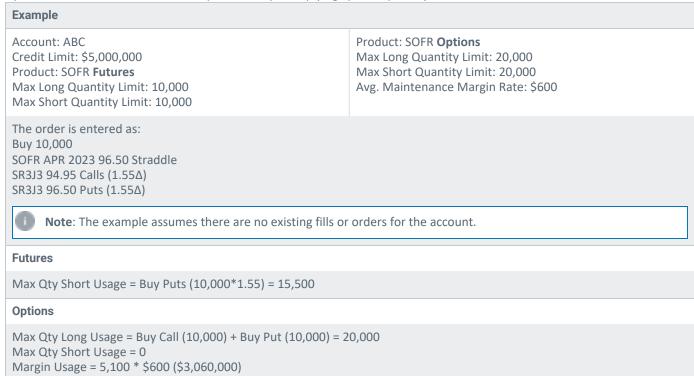


5. To finalize, select Save.

Calculating / Setting Option Limits

Risk controls allow <u>setting long / short option limits</u>, an optional setting. If limits are not set, trading may occur up to the specified futures long / short product limit and/or available credit.

Options are converted into futures equivalents by multiplying options quantity * delta.



ClearPort Options

Max Long Exposure Limit = Options bought (Call / Put) – Options Sold Max Short Exposure Limit = Options sold – Options bought

Account Credit Control Models

Venue	Account Credit Limit	Futures Maximum Qty Long / Short	Options Maximum Qty Long / Short
CME Globex - Inline Credit Controls (ICC)	n/a	Product Level in Contract Terms - Futures Position Limit See Example (below)	Product Level in Contract Terms - Options (Delta Equivalent) Position Limit See Example (below)
CME Globex - CME Direct	SPAN-Like Margin Calculation Model Futures and Options	Product Level in Contract Terms - including Futures and Options (Delta Equivalent) Position Limit See Example (below)	Product Level in Contact Terms - Options Position Limit See <u>Example</u> (below)
CME ClearPort	SPAN (True) Margin Calculation Model Futures and Options	Product Level in Contract Terms - including Futures and Options (Delta Equivalent) Position Limit See Example (below)	Product Level in Contract Terms - Options Position Limit See Example (below)

Product Position Limit Checking

ClearPort product position limit checking is an optional risk check, offered in addition to the mandatory credit limit check, that may be set for clearing and trading accounts. Product position limit checks operate on a current trading day basis with all account positions starting with a zero (flat) position each new trading day.

Separate Long / Short Position Limits may be set at the Future and Option Product Levels

A risk administrator can set position limits for Future (e.g. CL) and Option (e.g., LO) products with separate long and short position limits for each.

Example: A risk admin may set a long limit of 100 and a short limit of 120 for CL Futures, and the admin may set a long limit of 500 and a short limit of 525 for LO Options.

Both sets of limits may be set for a particular ClearPort clearing account or for a trading account (sub-account).

Futures Products

Position Limits on the Future Product Controls Delta Position that Result from both Futures and Options Trading

When calculating the future product's position utilization or trading in futures and options for the future contribute to position utilization.

Example: A buy for 200 LO call options (CL is underlying future) with a .50 delta will contribute 100 to the CL long future position. If the same account sells 50 CL futures, the net position in CL futures will be long 50.

Futures General Equations

Where both Traded Long and Traded Short are represented in positive numbers

- Total Long Position Utilization in Future Product = (Traded Long in Future + Traded Long (futures equivalent) in option on that future) (Traded Short in Future + Traded Short (futures equivalent) in option on that future)
- Total Short Position Utilization in Future Product = (Traded Short in Future + Traded Short (futures equivalent) in option on that future) (Traded Long in Future + Traded Long (futures equivalent) in option on that future)

Futures Example

Consider the following trades in a ClearPort account:

- Trade: Trade: Bought 25 CLF25
- Trade: Bought 30 CLZ26
- Trade: Sold 15 CLZ25
- Trade: Sold 25 LOG24 75.00 Puts w/.50 delta (Futures Equivalent = Long 12.5 CL)
- Trade: Bought 350 LOF24 35.00 Puts w/.1 delta (Futures Equivalent = Short 35 CL)
- Trade: Sold 100 LOG24 70.00 Calls w/.75 delta (Futures Equivalent = Short 75 CL)

Total Long Utilization in CL Future = (25 + 30 +12.5) - (15 + 35 + 75) = -57.5 (short position)

Total Short Utilization in CL Future= (15 + 35 + 75) - (25 +30 + 12.5) = 57.5

*Will display as a 0 (zero) long position utilization on risk management user interface

Option Products

Position Limits on the Option Product Controls Net Options Bought or Sold (no delta or market direction is considered). Options General Equations:

- Total Long Option Utilization = Total Options Bought (calls and puts) Total Options Sold (calls and puts)
- Total Short Option Utilization = Total Options Sold (calls and puts) Total Options Bought (calls and puts)

Options Example

Consider the following trades in a ClearPort account:

- Trade: Sold 25 LOG24 75.00 Puts w/.50 delta (Futures Equivalent = Long 12.5 CL)
- Trade: Bought 350 LOF24 35.00 Puts w/.1 delta (Futures Equivalent = Short 35 CL)
- Trade: Sold 100 LOG24 70.00 Calls w/.75 delta (Futures Equivalent = Short 75 CL)

Total Long Utilization in LO Option = 350 - (25 + 100) = 225

Total Short Utilization in LO Option = (25 + 100) - (350) = -225 (long position)

Will display as a 0 (zero) short position utilization on risk management user interface

FX Link and FX Spot+ Credit Management and Account Setup

The below referenced guides provide an overview and instructions for FX Link and FX Spot+ Credit Management and Account Setup.

- CME FX Link and FX Spot+ credit is managed through the Entity Risk Management (ERM).
- FX Link and FX Spot+ account creation is done via Account Management Service.