Xena Exchange

Rules of Xena Listed Perpetuals Trading

Effective since **1 Aug 2019**

This document, together with the Terms of Use, Privacy Policy and Rules of Operations, comprises the Xena Exchange Client Agreement. All Clients who open a spot account on Xena Exchange must agree to this document. The full list of the documents related to different products offered by Xena Exchange is located at https://xena.exchange/platform-specification/documents.

1. Definitions

1.1. ***Clearing*** — the regular process of settling profits or losses and other cash flows and recalculating the margins of active positions on Clients' Margin Accounts.

1.2. ***Free Margin*** — the difference between the Settled Balance of a Margin Account and the total amount of the Initial Margin of active Orders and positions. Depending on the contract specification, it may additionally include current Unsettled Variation Margin (both profit and loss or loss only).

1.3. ***Initial Margin*** — the amount of collateral required to open a position.

1.4. ***Leveraged trading, Margin trading*** — a trading mode whereby the Client is exposed to the price movements of an instrument without having to pay the full price of that instrument upfront.

1.5. ***Liquidation*** — the process of closing the Client's positions by Xena Exchange when the collateral deposited to the Account is not enough to cover the Margins.

1.6. ***Maintenance Margin*** — the amount of collateral required to keep a position open.

1.7. ***Margin Account*** — a special type of Client Account intended to track collateral, trades, and positions in Xena Contracts.

1.8. ***Unrealized profit or loss, Floating profit or loss*** — the yet unsettled change in the value of a position, calculated using the current Best Bid (for long positions) or Best Ask (for short positions).

1.9. ***Variation Margin*** — the unrealized profit or loss, calculated using the value of the underlying index of the Perpetual. The Variation Margin is settled to the Client's Account at each Clearing.

1.10. ***Xena Listed Perpetual, Contract*** — a cash-settled derivative contract intended to mirror the spot price of an underlying asset or index. Each contract is an agreement between a buyer and a seller to exchange the difference in value of a particular instrument between when the contract is opened and when it is closed. The difference is determined by referring to an "underlying asset," which can be a real Cryptocurrency or some index

calculated by predefined rules, such as the volatility of the price of a certain Cryptocurrency.

1.11. Other terms and definitions used in the Rules of Xena Listed Perpetuals Trading have meanings and are subject to interpretation in accordance with:

1.11.1. the provisions of these Terms;

1.11.2. the meaning of the term as defined on the Xena Exchange Website;

1.11.3. the applicable law; and

1.11.4. the current business practices of using these terms, definitions, and phrases on the Internet.

2. General statements

2.1. The Company facilitates the trading of Xena Listed Perpetuals by matching Client Orders of opposite directions and providing the necessary infrastructure (order book, market data, trade booking, settlement, account-keeping, risk management, and so on) to Clients.

3. Margin accounts

3.1. To be able to trade Xena Listed Perpetuals, a Client must open a Margin Account on Xena Exchange and make a deposit to it with funds that will be used as a margin.

3.1.1. Margin Accounts are nominated in a certain Cryptocurrency. Clients can deposit and withdraw only in the Cryptocurrency that is their Margin Account currency. The full list of Cryptocurrencies supported as account currencies is posted on the Xena Exchange website.

3.1.2. Clients may open multiple Margin Accounts that will be tracked independently (except in cases related to open disputes and negative balance coverage).

3.2. The Settled Balance of a Margin Account may change only as result of:

3.2.1. clearings and related payments;

3.2.2. the settlement of profits or losses after closing a position;

3.2.3. fee payments;

3.2.4. the deposit of Cryptocurrency to the Margin Account, the withdrawal of Cryptocurrency from the Margin Account to an External Wallet, or an internal transfer to or from another Margin Account; or

3.2.5. the settling of a compensatory deposit or withdrawal following the resolution of a dispute.

3.3. The Available Balance of a Margin Account equals its Free Margin.

4. Contract specifications

4.1. Each Contract traded on Xena Exchange is defined by the Specifications published on the Xena Exchange website.

4.2. A Contract may refer to Underlying Indices and Interest Rate Indices. Each Index is calculated in accordance with its Index Specifications published on the Xena Exchange website.

4.3. Contract Specifications and Index Specifications can be amended by Xena Exchange in accordance with the Amendment rules defined in the Rules of Operations.

4.4. By opening a Margin Account and executing transactions with Xena Listed Perpetuals, Clients confirm their agreement with the Contract and Index Specifications.

5. Expiration of contracts

5.1. Xena Listed Perpetuals do not expire. The only way to close a position is to trade the opposite side of your position.

5.2. There are limited circumstances in which Xena Exchange may expire and delist a contract. These circumstances include but are not limited to:

5.2.1. there is a lack of liquidity in the contract;

5.2.2. the underlying asset ceases to exist;

5.2.3. access to the data of the underlying instrument becomes unavailable, or it becomes impossible to build a reliable index using the existing data;

5.2.4. there are legal and regulatory requirements to delist a contract; or

5.2.5. there are other circumstances that make the existence of the Perpetual unreasonable or undesirable.

5.3. The procedure of delisting will be defined by the Company individually for each case. The Company retains the right to define the settlement price of a delisted contract at its own discretion. We will provide as much notice to market participants as possible to enable them to close out of open positions and will stick to the general market practices.

5.4. During the delisting, the Company retains the right to enable restrictions on the trading of the Perpetual being delisted, including but not limiting to:

5.4.1. putting restrictions on opening new positions;

5.4.2. putting restrictions on closing existing positions on the market;

5.4.3. increasing margin requirements; or

5.4.4. tightening the Risk Limits and putting additional limits on the price of the Perpetual.

The main intention behind these measures is to avoid growth in the volatility of a Perpetual in an uncontrollable manner, which may harm market participants.

6. Trading Operations and Orders

6.1. If a Client wishes to trade Xena Listed Perpetuals, he or she must send Orders to the Company.

6.2. When sending a new Order, the Client defines:

    6.2.1. the instrument (Contract);

    6.2.2. the direction (buy or sell);

    6.2.3. the quantity (measured in lots – lot sizes and contract values are defined in the Contract Specifications);

    6.2.4. the Order type;

    6.2.5. for Limit Orders, the Order price;

    6.2.6. for Stop Orders, the Stop price;

    6.2.7. additional execution instructions, if any;

    6.2.8. whether the Trades resulting from the execution of the Order must open or close a position; and

    6.2.9. additional information required when sending Orders through the API. The exact message formats are defined in the API documentation posted on the Xena Exchange website.

6.3. The Company supports the following types of Orders on the Xena Listed Perpetual market:

    6.3.1. Limit Order — an order to buy or sell Contracts at a certain or better price;

    6.3.2. Market Order — an order to buy or sell Contracts based on the bids or offers currently on the market;

    6.3.3. Stop Order — an order triggered and executed as a Market Order once the Market Price reaches the stop price of the Order;

    6.3.4. Stop Loss Order — a Stop Order that is linked to a position and is designated to close the position if the price goes in the direction unfavorable for the Client;

    6.3.5. Take Profit Order — a Limit Order that is linked to a position and is designated to close the position if the price goes in the direction favorable for the Client;

    6.3.6. Trailing Stop Loss Order — a Stop Loss Order with a stop price that constantly changes automatically to maintain the same distance from the Market Price;

    6.3.7. Attempt Zero Loss Order — a Trailing Stop Loss Order whose stop price moves only until it reaches the position's opening price;

    6.3.8. Order Cancel Request — a request to cancel a previously sent Order; and

    6.3.9. Order Cancel/Modify Request — a request to modify a previously sent Order.

6.4. All Orders sent by Clients are put into the Order queue. The queue works on a First In First Out basis (i.e., Orders put into the queue first will be processed [but not necessary filled] first).

6.5. A new Order may be rejected by the Company if:

6.5.1. the Order is sent for an unknown (unsupported) Instrument;

6.5.2. the price of a Limit Order or the stop price of a Stop Order does not fit the Price Step of the Instrument;

6.5.3. the price of the Limit Order does not conform to the current Price Range of the Instrument;

6.5.4. the stop price of a Stop buy Order is lower than the Last Price, or the stop price of a Stop sell Order is higher than the Last Price;

6.5.5. the quantity of the Order is smaller than the Minimum Order Size or does not conform to the Quantity Step of the Instrument;

6.5.6. the Margin of the Order is bigger than the Free Margin of the Client's Account;

6.5.7. at the moment of sending a new Trailing Stop Loss or Attempt Zero Loss Order, the number of active Trailing Stop and Attempt Zero Loss Orders for the same Instrument has reached the limit;

6.5.8. technical maintenance of the Platform is in process;

6.5.9. trading restrictions are imposed on the Client;

6.5.10. the Order is sent through Xena API and the message does not conform to the API specifications; or

6.5.11. internal errors occur during the Order processing procedure by the Platform.

6.6. If an Order is accepted by the Company:

6.6.1. the Free Margin of the Client's Account decreases by the Margin of the Order;

6.6.2. Limit and Market Orders are sent to the Order Book and matched against Orders resting in the Book; and

6.6.3. the Order status becomes "New," and the Leaves Quantity becomes equal to the Order Quantity.

6.7. All Limit Orders are GTC (Good Till Canceled) by default. This means they remain active until they are completely filled or canceled by the Client.

6.7.1. A Client may specify IOC (Immediate Or Cancel) and FOK (Fill Or Kill) instructions for Orders:

6.7.1.1. Immediate Or Cancel Orders are executed immediately, and the unfilled part of the Order is automatically canceled; and

6.7.1.2. Fill Or Kill Orders are executed immediately and completely, and if the Order cannot be filled in full, it is canceled completely.

6.8. All Market Orders are IOC (Immediate or Cancel). Clients can specify FOK (Fill Or Kill) instructions for Market Orders (i.e., if there is not enough liquidity on the market to fill the whole Order, the whole Order is rejected).

6.9. Stop Orders are treated as GTC before they are triggered (i.e., they remain active until triggered or canceled by the Client). When triggered and converted to Market Orders, they are treated as IOC by default (i.e., the part

of the order not filled immediately is canceled). Clients may specify that a Stop Order should behave as FOK after being triggered.

6.10.   Clients can add Stop Loss Orders (including Trailing Stop Loss and Attempt Zero Loss Orders) to an existing position or define their attributes in the Orders intended to open new positions.

6.11.   When an Order is filled and new position is opened, the Platform creates new Stop Loss and/or Take Profit Orders linked to the opened position as defined in the initial Order. The modification or deletion of the Stop Loss and/or Take Profit attributes of the Order does not affect the Stop Loss and Take Profit Orders linked to the positions opened as a result of fills of the Order before the modification or deletion.

6.12.   Stop Loss and Take Profit Orders linked to a position are automatically canceled when the position is closed. If the position is partially closed, the quantity of its Stop Loss and Take Profit Orders are adjusted automatically to match the actual position volume.

6.12.1.   Note that a race condition may occur if a Client sends an Order to close a position when the Market Price is near the Stop Loss or Take Profit of that position. Both the Order and the Stop Loss or the Take Profit may be executed simultaneously. In this case, the position will be closed, and a new position in the opposite direction will be opened.

Cancellation of Orders

6.13.   Clients can send an Order Cancel Request for any active (i.e., not yet completely filled, canceled, or rejected) Order. The cancellation is executed on a best-effort basis (i.e., if, by the moment the cancellation request is received by the exchange, the Order to be canceled is no longer active, the cancellation request is rejected).

6.14.   Clients' Orders resting in the Order Book may be canceled if their price exceeds the new Price Range boundaries after a Clearing.

6.15.   The Company reserves the right to cancel active Orders of Clients (including Stop Loss and Take Profit Orders linked to positions) before scheduled Platform maintenance windows. Such Orders will be not restored automatically after the maintenance.

Modification of Orders

6.16.   Clients can send an Order Cancel/Modify Request for any active (i.e., not yet completely filled, canceled, or rejected) Order. The following attributes can be changed:

6.16.1.   the quantity of a Limit or Stop Order (excluding Stop Loss and Take Profit Orders, as their quantity is aligned to the quantity of the position automatically);

6.16.2.   the price of a Limit Order (including Take Profit orders); and

6.16.3.   the stop price of a Stop Order (including Stop Loss orders).

6.17.   When the price or stop price of an Order is changed, the Order is placed at the end of the Order Queue of the new price level.

6.18.   When the quantity of an Order is changed:

    6.18.1.   if the quantity decreases, the Order retains its position in the Order Queue of its current price level; and

    6.18.2.   if the quantity increases, the Order is placed at the end of the Order Queue of its current price level.

6.19.   If the updated quantity of an Order is less than its cumulative quantity (already filled quantity), the Order is treated as completely filled.

7.   Matching and Execution

Limit and Market Orders

7.1.   When a new Limit or Market Order hits the Order Book, it is matched against Orders in the opposite direction already resting in the Book:

    7.1.1.   Resting orders are first sorted by price from best to worst (for an incoming buy Order, "better price" means a lower price, and for an incoming sell Order, it means a higher price). Market Orders resting in the Book are considered to have better prices than Limit Orders.

    7.1.2.   Orders with the same price are ordered by their arrival time (or modification time — see 5.15–5.17).

    7.1.3.   For an incoming Limit Order, only resting Orders with a price better than or equal to the incoming Order price are considered.

    7.1.4.   For all types of Orders except Orders used for Liquidation, only resting Orders within the current Price Range are considered.

    7.1.5.   Until the incoming order is filled completely or there are no more resting Orders in the Book that can be matched against the incoming Order, the incoming Order is continuously matched with the next-best order from the Book:

        7.1.5.1.   the execution price equals the price of the Book Order except in the following cases:

            7.1.5.1.1.   if an incoming Limit Order is matched against a Market Order resting in the book, the price of the incoming Order is used; and

            7.1.5.1.2.   if an incoming Market Order is matched against a Market Order resting in the book, the price of the best Limit Order is used; if there are no Limit Orders with a price better than the respective Price Boundary, the Price Boundary is used;

        7.1.5.2.   the execution quantity (Last Quantity) is selected as the lowest Leaves Quantity of the matched Orders, and the Last Quantity is added to the Orders' Cumulative Quantity;

7.1.5.3. if, as a result of a match, the Leaves Quantity of an Order becomes zero, the status of the Order becomes "Filled," and the Order is removed from the Order Book; if the Leaves Quantity remains greater than zero and the Order is not IOC, the status of the Order becomes "Partially Filled," and the Order rests in the Order Book; and

7.1.5.4. the Margin of the matched Orders decreases to reflect the change in the Leaves Quantity, and the Free Margin of the Account increases accordingly.

7.1.6. When there are no Orders suitable for matching remaining on the other side of the book:

7.1.6.1. for each of the matched Orders from the Order Book, a new Trade is booked to the Account to which the Order belongs, the Trade price and quantity equal the price and quantity of the match, and the side of the Trade equals the side of the Order;

7.1.6.2. for the incoming Order, all Last Quantities are summed up, the execution price (Last Price) is calculated as the quantity-weighted average of the prices of all fills, a new Trade whose quantity and price are defined above is booked to the Account of the Order, the side of the Trade equals the side of the Order, the Last Price for the Instrument is set to the booked Trade price, and the Trade is reported as the Last Trade to the market;

7.1.6.3. if the incoming Order is Immediate Or Cancel and its Leaves Quantity remains greater than zero after matching with all Orders from the Book, its remnant is canceled, and partially filled Good Till Cancel Orders rest in the Order Book; and

7.1.6.4. if the incoming Order is Fill Or Kill and after all matches, its Leaves Quantity remains greater than zero (i.e., the Order is not filled completely), the Order is canceled as a whole, no Trades are booked, and the Last Price is not updated.

Stop Orders

7.2. Stop Orders do not affect the Order Book. The Platform checks the triggering conditions for these Orders upon any update of the Underlying Index value. The Orders are triggered when:

7.2.1. the Underlying Index value becomes greater than or equal to the Stop Price of a buy Stop Order; or

7.2.2. the Underlying Index value becomes lower than or equal to the Stop Price of a sell Stop Order.

7.3. Upon being triggered, Stop Orders are automatically converted to Market Orders and sent for execution through the Order queue, which means that other Orders received before the triggering are processed first.

7.3.1. If there are several Stop Orders with the same stop price triggered at the same time, they are put into the Order queue in the order of reception by Xena Exchange (Orders received or modified first are sent for execution first).

Important Notice Regarding Stop Loss and Take Profit Orders

7.4. Stop Loss Orders linked to positions are regular Stop Orders that are treated as IOC after triggering. If, after triggering, there is not enough liquidity in the Order Book to fill the Stop Loss completely, it will be filled partially. The position will be closed partially, and there will be no Stop Loss Order linked to the remaining part of the position.

7.5. Take Profit Orders linked to positions are regular Limit Orders for which the complete execution is not guaranteed. When a Take Profit is partially executed, the position is partially closed. The remaining part of the position is still linked to the remaining part of the Take Profit Order.

Wash Trades

7.6. Wash trades are prohibited. If, during the matching process, an incoming Order is to be matched with a Book Order that relates to the same Account or to different Accounts of the same Client, the match will not occur, and the remaining part of the incoming Order will be canceled.

Trade Booking

7.7. When a new Trade is booked to an Account, it opens a new position, unless the originating Order was marked as a position-closing Order. In the latter case, the respective position is closed.

7.7.1. If the originating Order was a position-closing order but the position was closed by another Trade (a race condition occurred), a new position is opened.

7.8. A trade fee is deducted from the Settled Balance of the Client's Account.

History

7.9. The Company keeps records of Order Chains (incoming Orders, cancellation requests, Order status changes) for at least seven (7) days following the receipt of the Order that begins the Chain.

7.10. The Company keeps Trade records for at least three (3) years following the moment of a Trade booking.

8. Positions

8.1.   Several positions with the same Contract may exist on an Account simultaneously, including positions in different directions (long and short). This approach to position tracking is referred to as Hedged position tracking.

Opening a position

8.2.   Any Trade booked to an Account by default opens a new position, unless the originating Order was a position-closing Order.

8.3.   When a new position opens, its Initial and Maintenance Margins are calculated. The Position value used in the calculation is determined based on the position's Open Price. The Account Margins (Free and Maintenance) are recalculated considering the Margins of the position.

Closing a position

8.4.   A position can be closed only as the result of a Trade:
   8.4.1.   triggered by a Market Order sent by the Client;
   8.4.2.   triggered by the execution of a Stop Loss or a Take Profit Order linked to the position;
   8.4.3.   triggered by Orders sent during Liquidation initiated by Xena Exchange;
   8.4.4.   booked as part of an action required to resolve a dispute in the event that restrictions are imposed on the Client, or in other cases; or
   8.4.5.   booked as the result of deleveraging.

8.5.   When a position is closed:
   8.5.1.   the position profit or loss is calculated as the difference between the closing value of the position (defined by the Trade price) and its value at the last Clearing (or opening, if the position was opened after the last Clearing).
   8.5.2.   the profit (or loss) is added (or deducted) to (or from) the Settled Balance of the Client's Account;
   8.5.3.   the Account Margins (Free and Maintenance) are recalculated; and
   8.5.4.   any Stop Loss and Take Profit Orders linked to the position are canceled.
      8.5.4.1.   Cancellation is executed on a best-effort basis. If a Stop Loss or Take Profit Order is filled before it is canceled, the fill will open a new position.

Position collapse

8.6.   Position collapse is a process during which multiple positions for one Contract opened on an Account are collapsed into one (or zero) resulting position(s). During this process, the current financial state (the total exposure to the

market risk and the sum of the realized and unrealized profit or loss of all positions) does not change; position collapse does not require any trades to be executed on the Market or to be booked to the Account, so there are no associated trading fees.

8.7. All Stop Loss and Trailing Stop Orders linked to the closed positions are canceled. The resulting position does not have any linked Stop Loss or Take Profit Orders.

8.8. There is no fee for position collapse.

9. Margins

9.1. Margins are used to ensure that Clients fulfil their liabilities.

9.2. Margins are calculated as the product of the value of the position (Order), the Margin Rate, and the Margin Multipliers (see Appendix for the exact formula).

 9.2.1. Margin Rates are defined in the Contract Specifications and may change depending on the total volume of positions and Orders opened on the Account.

 9.2.2. Margin Multipliers depend on:

  9.2.2.1. the Order and position type (defined in the Contract Specifications);

  9.2.2.2. the Account (e.g., due to regulations, effective leverage is limited for Clients from certain countries); and

  9.2.2.3. the Contract (e.g., margin requirements may be increased at the sole discretion of the Company with or without prior notification due to increased volatility in the Contract's underlying asset).

  9.2.2.4. All current Margin Multipliers are published on the Xena Exchange website.

9.3. An Initial Margin is calculated for new Orders. The Free Margin of the Client's Account must exceed the Initial Margin of the Order for it to be accepted. When the Order is filled, its Initial Margin decreases in proportion to the fill quantity, and the Initial Margin of the opened position is calculated based on its value.

 9.3.1. The Initial Margin equals zero for Orders intended to close positions (including Stop Loss and Take Profit Orders).

9.4. A Maintenance Margin is calculated for opened positions.

9.5. The Margin Level is the ratio between the Equity of the Account and the total Maintenance Margin. If the Margin Level falls below the Stop-out Level, the Account undergoes the Liquidation process.

9.6. The Free Margin limits the volume of new Orders and positions that can be opened on the Account. There are three options of how Free Margin is calculated, the exact option for a certain contract is defined in the Contract Specification. Please, refer to the Appendix for the exact formulae.

9.7. If the current Margin Rate changes, the Margins of all active Orders and positions are recalculated, which may cause a sharp decrease in the Margin Level and result in the Liquidation of an Account.

9.7.1. Clients are responsible for ensuring that the collateral of their Accounts is sufficient to cover the Margins. The Company is not responsible for any missed profits or incurred losses caused by or related to changes in the Margin Rates.

10. Clearing and Settlement

10.1. Open positions in Xena Listed Perpetuals are subject to regular Clearings. The Clearings for all Perpetuals occurs once an hour, at 00:00 UTC, 01:00 UTC, and so on.

10.2. During a clearing:

10.2.1. The Variation Margin is calculated as the difference between the current value of the position, calculated based on the Underlying Index and its value at the moment of the last clearing (or at position opening, if the position was opened after the last clearing).

10.2.2. The Calculated Variation Margin is added (if positive) or subtracted (if negative) from the Settled Balance of the Client's Account.

10.2.3. Interest payments are calculated based on the value of the position as of the Clearing and the interest rates defined by the Interest Rate Indices in the Contract Specifications. Interest payments are added (subtracted) to the Settled Balance of the Account.

11. Price Range, Upper Limit, and Lower Limit

11.1. All Trades (except Liquidation Trades) must occur only within the current Price Range, which means that:

11.1.1. Limit Buy Orders (except Liquidation Orders) with a price higher than the Upper Boundary of the Price Range will be rejected by the Platform;

11.1.2. Limit Sell Orders (except Liquidation Orders) with a price lower than the Lower Boundary of the Price Range will be rejected by the Platform; and

11.1.3. Market Orders will be matched only with Limit Orders resting in the Order Book that have a price within the current Price Range.

11.2. The Upper Limit and Lower Limit are defined at each Clearing. The price of the Clearing and the Risk Limit Width (defined in the Contract Specifications) are used to define the distance between the Clearing Price and the Upper and Lower Limits.

11.3. The Price Range is defined at each Clearing. The price of the Clearing is used to define the width of the Price Range, and the initial Price Range boundaries are set at equal distances from the Clearing Price.

11.3.1. The Price Range moves up if the Best Bid stays above the Price Range Move Up Boundary for at least the Price Range Moving Time.

11.3.2. The Price Range moves down if the Best Ask stays below the Price Range Move Down Boundary for at least the Price Range Moving Time.

11.3.3. The Price Range moves by half its width.

11.3.4. If the new Upper (or Lower) Boundary of the Price Range is about to exceed the Upper (or Lower) Limit, it is set to the Upper (or Lower) Limit; accordingly, the Lower (or Upper) Boundary is set below (or above) the Upper (or Lower) Limit by the Price Range Width.

11.4. If, after a Clearing, there are buy (or sell) Limit Orders with prices higher (or lower) than the Upper (or Lower) Boundary of the new Price Range defined at the Clearing, these Orders are canceled by the Platform.

12. Liquidation

Liquidation triggering

12.1. To ensure that the collateral deposited to a Client's Account is sufficient to cover the Client's liabilities, the Platform calculates the current liabilities for all active positions on each Account. Liabilities are recalculated at each change of the underlying indices of all Xena Listed Perpetuals for which there are active positions on the Account.

12.1.1. First, the current Unsettled Variation Margin (UVM) is calculated for each active position. The UVM is calculated in accordance with the Contract Specifications and is the difference between the value of the position as of the last Clearing (or as of position opening, if the position was opened after the last Clearing) and the current value.

12.1.2. The current value is calculated by the current value of the underlying index.

12.1.3. If the Margin Rate of the Account, which is the ratio between the sum of the Balance and UVM, and the total Maintenance Margin, falls below the Liquidation Level defined for the Account, the Account is marked for Liquidation.

Safe liquidation

12.2. To reduce the number of unnecessary liquidations, Xena Exchange uses Safe Liquidation. For an Account to be liquidated, it must remain marked for Liquidation for at least three (3) seconds.

12.3. Even when an Account is marked for Liquidation, its Margin Rate is recalculated as usual upon each change in the underlying index value. If the Margin Rate goes above the Liquidation Level, the Account is no longer marked for Liquidation.

Liquidation process

12.4. When an Account is marked for Liquidation, all incoming Orders from the Client (including Order Cancel Requests and Order Modification Requests) are rejected outright. All withdrawal requests are rejected as well.

12.5. The Liquidation process is as follows:

12.5.1. a Liquidation Fee is withdrawn from the Account. The Liquidation Fee is calculated as the total value of the active positions multiplied by the Liquidation Fee Rate, which is published on the Xena Exchange website;

12.5.2. all active Orders are canceled;

12.5.3. when there are no more active Orders, all active positions are collapsed;

12.5.4. for each position remaining after the collapse, its Liquidation Price is calculated (see the Appendix for exact formulae). An Immediate or Cancel Limit Order with a limit price equal to the Liquidation Price is sent to close the position (this Order is referred to as a Liquidation Order);

12.5.5. if the Liquidation Order cannot be filled completely at the market, it is executed using the deleveraging procedure;

12.5.6. when all Liquidation Orders are executed, the Liquidation is finished, and the Account is no longer marked for Liquidation.

12.6. The liquidation fee amount is added to the Liquidation Fund.

Deleveraging

12.7. During the deleveraging procedure, Clients' positions are used to execute the incoming Liquidation Order.

12.8. The positions to be used for execution are selected as follows:

12.8.1. only Accounts that have active positions with the same instrument as the instrument of the incoming Liquidation Order are considered; for an incoming sell Order (designated to close a long position), Accounts that have short positions are selected; for an incoming buy Order (designated to close a short position), Accounts with long positions are selected;

12.8.2. selected Accounts are ranked using three criteria (positions in all Instruments are counted in the formulae below). During the ranking process, the Accounts are sorted by each of the criteria in descending order and receive an index in the sorted sequence:

- The effective leverage of all active positions

$$\left(\frac{\sum Value_{AccountCurrency}}{Balance} \right)$$

- The total profit or loss of all active positions on the Account

$$\left(\sum (CumulativePL_i + Unsettled\ Variation\ Margin_i) \right)$$

- The time since the last moment the Account was used for deleveraging

12.8.3. all the indices are multiplied to get the final rank, and Accounts with smaller ranks are used first; and

12.8.4. if there are several positions on a chosen Account, a position with a higher volume is selected.

12.9. The selected position is closed (or partially closed, if its volume is less than the remaining quantity of the Liquidation Order) at the price of the Liquidation Order. The respective trade is booked to the Account. If the Liquidation Order remains not completely filled, the next positions are selected according to their Account's rank until the Order is filled.

12.10. Holders of positions used for deleveraging do not pay trading fees or receive rebates for the trades executed during deleveraging.

12.11. Trades booked during deleveraging are not reported to the market.

13. Cross-currency calculations

13.1. When the settlement currency of a Xena Listed Perpetual differs from the currency of the Account, the margins of active positions and Orders as well as payments related to positions are converted from the Settlement Currency to the Account Currency. The Index method is used for the conversion. Please, note that at the time of a clearing the new rate defined at the clearing is used for conversion.

Appendix — Formulae

Equity

$$Equity = Settled\ Balance + \sum_{Active\ positions} Unsettled\ Variation\ Margin_i$$

The Unsettled Variation Margin is calculated as the difference between the current value of a position and its value at the last clearing (or position opening, if the position was opened after the last clearing). The current position value is calculated based on the current value of the underlying index. The exact formula for the calculation of a position's value is defined in the Contract Specifications.

Free Margin and Margin Level

Free margin includes Unsettled Variation Margin (defined per Instrument in the Contract Specification)	Free margin
No	$$Settled\ Balance - \sum_{Instruments} Initial\ Margin$$
Yes	$$Settled\ Balance + \sum_{Active\ positions} Unsettled\ Variation\ Margin_i$$ $$- \sum_{Instruments} Initial\ Margin$$
Loss only	$$Settled\ Balance$$ $$+ min(0, \sum_{Active\ positions} Unsettled\ Variation\ Margin_i)$$ $$- \sum_{Instruments} Initial\ Margin$$

$$Maintenance\ Margin = \sum_{Instruments} Maintenance\ Margin$$

The Initial and Maintenance Margins are first calculated for each instrument for which there are active positions on an Account and then summed up in accordance with the margin-netting used for the instrument.

$$Margin\ Level = max(\frac{Equity}{Maintenance\ Margin} * 100\%, 10000\%)$$

Margin by Instrument

Depending on the Margin-netting mode defined in the Contract Specifications, the total margin for each instrument is calculated as follows (M and IM stand for Initial Margin, MM stands for Maintenance Margin):

Margin netting	Initial margin
Off	$$\sum_{Active\ orders} M_i + \sum_{Open\ positions} IM_j$$
Positions only	$$\sum_{Active\ Orders} M_i + max(\sum_{Open\ Long\ positions} IM_j, \sum_{Open\ Short\ positions} IM_k)$$
Orders and positions	$$max(\sum_{Active\ Buy\ Orders} M_i + \sum_{Open\ Long\ positions} IM_j, \sum_{Active\ Sell\ Orders} M_i + \sum_{Open\ Short\ positions} IM_j)$$

Margin-netting	Maintenance margin
Off	$$\sum_{Open\ positions} MM_j$$
Positions only	

Orders and positions	$max(\sum\limits_{Open\ Long\ positions} MM_j, \sum\limits_{Open\ Short\ positions} MM_k)$

Order and Position Margins

$$InitialMargin = roundup(PositionValue_{Settlement\ Currency} * IMR * MarginMultipliers, Precision_{Settlement\ currency})$$

$$MaintenanceMargin = roundup(PositionValue_{Settlement\ Currency} * MMR * MarginMultipliers, Precision_{Settlement\ currency})$$

Here, IMR is the Initial Margin Rate, and MMR is the Maintenance Margin Rate. Note that the margin rate may depend on the total value of the positions and orders opened on the account. Refer to the Contract Specifications for details.

The position value calculation depends on the contract and is defined in the Contract Specifications.

Note that the total position value that defines the Margin Rate to be used for the Orders and positions for a particular Instrument on a Client's Account is calculated as the sum of the values of all active Orders and positions independently on the margin-netting of the instrument.

Interest Payments

$$Interest_{Settlement\ currency} = -roundup(\frac{InterestRate}{InterestRateBasis} * PositionValue_{Settlement\ currency} * \frac{1}{24}, Precision_{Settlement\ currency})$$

All Interest Rates are annualized.

The Interest Rate Basis is defined in the Interest Rate Index Specifications.

1/24 stands for the interest calculation period, equal to one hour.

Price Range and Risk Limits

$$PriceRangeAbsWidth = roundup(ClearingPrice * PriceRangeWidth, PriceStep)$$

$$LowerPriceRangeBoundary$$
$$= rounddown(ClearingPrice - \frac{PriceRangeAbsWidth}{2}, PriceStep)$$

$$UpperPriceRangeBoundary = roundup(ClearingPrice + \frac{PriceRangeAbsWidth}{2}, PriceStep)$$

$$PriceRangeMoveUpBoundary = rounddown(UpperPriceRangeBoundary - PriceRangeAbsWidth * PriceRangeMovingBoundary, PriceStep)$$

$$PriceRangeMoveDownBoundary = roundup(LowerPriceRangeBoundary + PriceRangeAbsWidth * PriceRangeMovingBoundary, PriceStep)$$

The Price Range Width and the Price Range Moving Boundary are defined in the Contract Specifications.

The risk limits (Upper Limit and Lower Limit) are calculated using the same formulae with Risk Limits Width instead of Price Range Width.

Liquidation Prices

Consider that at the moment of the liquidation, the Account undergoing the liquidation had the balance $Balance$; the values of the underlying indices were $Index_{Instrument1}, Index_{Instrument2}$, and so on; and the unrealised variation margins calculated these prices as $UVM^0{}_1, UVM^0{}_2$, etc.
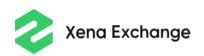
1. First, the shortage is calculated for each position remaining after collapse:
   a. If $\sum (InitialMargin_i * Rate(SettlementCurrency -> AccountCurrency)) \leq Balance$,

      $$Shortage_i = InitialMargin_i - MaintenanceMargin_i * Stop\ Out\ Level$$

      $+UVM_i(SettlPrice_i, Index_i)$, here UVM stands for Unsettled Variation Margin

   b. Else:

      $$Shortage_i = \frac{InitialMargin_i}{\sum InitialMargin_i} * Balance * Rate(AccountCurrency -> SettlementCurrency)$$

      $$-MaintenanceMargin_i * Stop\ Out\ Level + UVM_i(SettlPrice_i, Index_i)$$

2. For positions with $Shortage \geq 0$:
   $LiquidationPrice_i = Index_i * (1 - Side * LiquidationMaxDistance_i)$, where Side is 1 for long positions and -1 for short positions, and Liquidation Max Distance is defined in the contract specification. For each position, its realized profit is calculated as if it were opened at $Index_i$ price and closed at $LiquidationPrice_i$.

3. The expected trading fees are calculated for trades that will close the positions. For positions with $Shortage \geq 0$, the Liquidation Price defined at step 2 is defined to assess the fee; for other positions, it is the respective $Index_i$.

4. The total amount of funds remaining on the account for the liquidation is calculated:

$$Remaining = Balance + \sum UVM_j^0 + \sum RPL_i - \sum TradingFee_k$$

5. The remaining funds are split among positions with $Shortage < 0$ in proportion to their $Shortage$:

$$Allocation_i = Shortage_i * \frac{Remaining}{\sum_{S<0} Shortage_i} * Rate(AccountCurrency-$$
$$> SettlementCurrency)$$

6. The liquidation price is calculated for each of these positions such that if the position were opened at the $Index_i$ price and closed at the $LiquidationPrice_i$, the PL would have been exactly $Allocation_i$. The formulas are:

   a. For inverse instruments: $LiquidationPrice_i = \dfrac{1}{\frac{1}{Index_i} + \frac{Allocation_i}{Value_{USDT}} * Side} =$

   $$\dfrac{Index_i * Value_{USDT}}{Value_{ContractValueCurrency} - Allocation_i * Index_i * Side}$$

   b. For direct instruments: $LiquidationPrice_i = Index_i - \dfrac{Allocation_i}{Value_{ContractValueCurrency}} * Side$