■■ ■ METAL PERPS

Perpetual Futures Trading Protocol

Trade BTC, ETH, Gold & Silver with up to 150x Leverage

Built on Arbitrum • Powered by gTrade Protocol

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1. Introduction

Metal Perps is a decentralized perpetual futures trading interface that enables users to speculate on the price movements of cryptocurrencies and precious metals with leverage. Built on Arbitrum and powered by the gTrade protocol, Metal Perps offers a seamless trading experience with deep liquidity, competitive fees, and reliable oracle pricing.

This whitepaper provides a comprehensive overview of the Metal Perps system, explaining how it works, the assets available for trading, risk management strategies, and technical implementation details.

2. What is Metal Perps?

Metal Perps is a perpetual futures trading interface that allows traders to:

- **Trade with Leverage:** Amplify your exposure up to 150x on crypto and 25x on commodities
- **Go Long or Short:** Profit from both rising and falling markets
- **No Expiration:** Perpetual contracts have no expiry date - hold as long as you want
- **Trade 24/7:** Cryptocurrency markets never close (commodities follow traditional hours)
- **Low Fees:** Competitive trading fees on Arbitrum's fast, cheap network

2.1 Key Benefits

Feature	Benefit
Arbitrum Network	Fast transactions, low gas fees (~$0.01-0.10)
Chainlink Oracles	Reliable, manipulation-resistant price feeds
gTrade Protocol	Battle-tested smart contracts, deep liquidity
No KYC Required	Trade directly from your wallet
Self-Custody	Your funds remain in your control

3. Supported Assets

Metal Perps supports trading on four major assets across two categories:

3.1 Cryptocurrencies

Asset	Symbol	Max Leverage	Min Leverage	Market Hours
Bitcoin	BTC	150x	1.1x	24/7
Ethereum	ETH	150x	1.1x	24/7

3.2 Precious Metals (Commodities)

Asset	Symbol	Max Leverage	Min Leverage	Market Hours
Gold	XAU	25x	2x	Sun 10PM - Fri 10PM UTC
Silver	XAG	25x	2x	Sun 10PM - Fri 10PM UTC

Note: Commodities follow traditional forex market hours. Trading is closed on weekends (Saturday all day, Sunday before 10PM UTC).

4. How Trading Works

4.1 Opening a Position

To open a trade on Metal Perps, follow these steps:

1. **Select Asset:** Choose from BTC, ETH, Gold, or Silver
2. **Choose Direction:** LONG (bet price goes up) or SHORT (bet price goes down)
3. **Set Collateral:** Enter the USDC amount you want to risk (minimum $5)
4. **Adjust Leverage:** Choose your leverage multiplier (higher = more risk/reward)
5. **Review & Execute:** Check position size and liquidation price, then confirm

4.2 Position Size Calculation

Your position size is calculated as: **Position Size = Collateral × Leverage**

Example: With $50 collateral and 20x leverage, your position size is $1,000. This means a 1% price move equals a $10 profit/loss (20% of your collateral).

4.3 Profit & Loss

Direction	Price Moves Up	Price Moves Down
LONG	■ Profit	■ Loss
SHORT	■ Loss	■ Profit

5. Leverage Explained

Leverage allows you to control a larger position than your collateral would normally allow. While this amplifies potential profits, it equally amplifies potential losses.

5.1 Leverage Examples

Leverage	Collateral	Position Size	1% Move P&L	Liquidation Distance
5x	$100	$500	$5 (5%)	~20%
10x	$100	$1,000	$10 (10%)	~10%
25x	$100	$2,500	$25 (25%)	~4%
50x	$100	$5,000	$50 (50%)	~2%
100x	$100	$10,000	$100 (100%)	~1%

5.2 Leverage Risk Tiers

• **Conservative (1-10x):** Lower risk, suitable for beginners. Liquidation is unlikely during normal volatility.

• **Moderate (10-25x):** Medium risk. Good for experienced traders. Watch positions closely.

• **Aggressive (25-50x):** High risk. Small price moves cause large P&L; swings. For advanced traders only.

• **Extreme (50-150x):** Maximum risk. Liquidation can occur within minutes. Expert level only.

6. Position Management

6.1 Monitoring Your Positions

The Positions tab displays all your open trades with real-time data:

- **Asset:** Which market your position is in (BTC, ETH, Gold, Silver)
- **Direction:** Whether you're LONG or SHORT
- **Position Size:** Total value of your leveraged position
- **Entry Price:** The price at which your position was opened
- **Current P&L;:** Unrealized profit or loss based on current price
- **Liquidation Price:** Price at which your position will be forcibly closed

6.2 Closing Positions

You can close your position at any time by clicking the 'Close Position' button. When you close:

- Your collateral is returned (minus any losses)
- Profits are added to your balance
- A small closing fee is deducted
- The position is removed from your active trades

7. Liquidation Mechanics

Liquidation is the automatic closing of your position when losses approach your collateral. This protects the protocol from bad debt.

7.1 How Liquidation Works

When the market price reaches your liquidation price:

- Your position is automatically closed by the protocol
- Remaining collateral (after losses and fees) is returned to your wallet
- In extreme cases, you may lose your entire collateral
- You are not responsible for any losses beyond your collateral (no negative balance)

7.2 Liquidation Price Formula

For LONG positions: Liquidation Price ≈ Entry Price × (1 - 0.9/Leverage)

For SHORT positions: Liquidation Price ≈ Entry Price × (1 + 0.9/Leverage)

The 0.9 factor accounts for a 10% buffer to cover fees and slippage during liquidation.

8. Market Hours

8.1 Cryptocurrency Markets

BTC and ETH trade **24 hours a day, 7 days a week**. The crypto market never closes, so you can open, close, and manage positions at any time.

8.2 Commodity Markets

Gold and Silver follow traditional forex commodity trading hours:

Day	Market Status	Times (UTC)
Monday - Thursday	■ Open	All Day
Friday	■ Open until close	Until 10:00 PM
Saturday	■ Closed	All Day
Sunday	■ Opens late	After 10:00 PM

9. Technical Architecture

9.1 Network: Arbitrum One

Metal Perps operates on Arbitrum One, an Ethereum Layer 2 scaling solution. Benefits include:

- Transaction fees of $0.01-0.10 (vs $5-50 on Ethereum mainnet)
- Near-instant transaction confirmations (~0.3 seconds)
- Full Ethereum security through optimistic rollups
- EVM compatibility - works with all standard wallets

9.2 Protocol: gTrade (Gains Network)

Metal Perps interfaces with the gTrade protocol, a decentralized leveraged trading platform. gTrade provides the underlying infrastructure including:

- Smart contract execution for opening/closing positions
- Liquidity pools for trade settlement
- Position management and liquidation logic
- Fee collection and distribution

9.3 Oracle: Chainlink Price Feeds

All prices are sourced from Chainlink decentralized oracles, providing:

- Tamper-proof price data from multiple sources
- High-frequency updates for accurate pricing
- Protection against flash loan manipulation
- Industry-standard security trusted by billions in DeFi

10. Risk Management

■■ IMPORTANT: TRADING INVOLVES SUBSTANTIAL RISK OF LOSS

10.1 Key Risks

- **Liquidation Risk:** You can lose your entire collateral if the market moves against you
- **Leverage Risk:** Higher leverage means faster profits OR faster losses
- **Volatility Risk:** Crypto and commodities can move 5-20% in a single day
- **Smart Contract Risk:** While audited, DeFi protocols can have vulnerabilities
- **Oracle Risk:** Price feed delays or manipulation could affect positions
- **Network Risk:** Blockchain congestion could delay critical transactions

10.2 Risk Mitigation Strategies

- **Use Lower Leverage:** Start with 5-10x until you understand the mechanics
- **Size Positions Appropriately:** Never risk more than 1-5% of your portfolio per trade
- **Set Stop Losses Mentally:** Know at what price you'll close a losing position
- **Diversify:** Don't put all your capital in one position or asset
- **Monitor Positions:** Check your trades regularly, especially in volatile markets
- **Only Trade What You Can Lose:** Never trade with money you need

11. Getting Started

11.1 Prerequisites

- A Web3 wallet (MetaMask, Rabby, Coinbase Wallet, etc.)
- ETH on Arbitrum for gas fees (~$1 worth is plenty)
- USDC on Arbitrum for trading collateral

11.2 Quick Start Guide

1. Connect your wallet to DTGC.io
2. Click the ■■ Metal Perps button in the bottom-left corner
3. Select an asset (BTC, ETH, Gold, or Silver)
4. Choose LONG (price up) or SHORT (price down)
5. Enter your collateral amount ($5 minimum)
6. Adjust leverage using the slider
7. Review position size and liquidation price

8. Click 'Open LONG' or 'Open SHORT' to execute

9. Monitor your position in the Positions tab

10. Close when ready to take profit or cut losses

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