TRADING ACADEMY

LEVEL-1: COMPLETE GUIDE TO
TRADING FOREX & CFDs

MODULE-1
MECHANICS OF TRADING

SECTION-5
POSITION SIZE - LOT SIZE

TRADING ACADEMY LIMITED

MODULE-1: SETUP PHASE / THE MECHANICS OF TRADING

SECTION-5: POSITION SIZE - LOT SIZE

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PREVIEW

ABOUT THIS SECTION

This section will cover the topic of position sizing in relation to placing orders on the market. Position sizing is directly related to money management and risk management is an important aspect that requires calculation and an articulate approach.

The MT4 platform deals in lot sizes rather than dollars and cents and, therefore, requires you to understand how to place an order ticket based on the translation of a dollar value or unit value depending on the currency pair traded as well as the stop loss component of the position size being relative to a percentage of your overall account balance.

SECTION OBJECTIVES

At the end of this section you should have:

- Have downloaded a lot size calculator and understand its use
- Explain what a lot size is and how its breakdown operates
- Explain the functionality of leverage
- Understand how to manage risk through position sizing

5. OVERVIEW OF POSITION SIZING

5.1: POSITION SIZE

A confusing aspect to the order ticket is the Position Size or Unit Amount of the trade. The position size, commonly referred to as the lot size is typically a leveraged amount as offered by the broker and the amount you have exposed on the trade is referred to as your margin, collateral or deposit required in order to have a particular position size on the markets on account of leverage.

The value of the position size is reflected by the number of units of the base currency you have as your trade size. In the case of having an account with a New Zealand broker and placing a trade on the NZD/USD, $100,000 position of the base currency would relate to an NZD $100,000 on the market for this trade. Your deposit, margin or actual exposure as leveraged by the broker at 1:500 would be $200, or 1:200 would be $500. So your position size is the culmination of your margin, the broker's leverage and the liquidity providers' capital providing a magnified position on the marketplace as a result of this amalgamation.

5.2: LEVERAGE

When trading Forex the broker offers leverage to provide a larger position on the markets than you could have otherwise on your own, essentially altering the value of a single PIP to a greater value depending on the size of the position and the leverage offered. Any gains or losses made from this leveraged order are reflected as a dollar value in your account.

In Forex, The trader or speculator uses leverage to profit from the fluctuations in exchange rates between two different countries. The leverage that is achievable in the Forex market is one of the highest traders can obtain. Leverage is a loan that is provided to a trader by the broker that is handling his or her Forex account. Commonly the broker leverages traders by 1:100, 1:200 up to 1:400 or even 1:500. Whilst you’re able to take advantage of smaller fluctuations with a larger position due to the magnified status on account of leverage this also translates to your risk-exposure on the market place being largely magnified as well.

The higher the leverage, the greater position you can have on the markets, however the higher the risk-exposure due to the leveraged position. Without leverage the movement of the PIP as 1/100th of a basis point is so small that astronomical positions are required in order to take advantage of these minor market fluctuations.

5.3: LOT SIZE

The Lot Size or volume is one of the first values you enter on your order ticket to provide your position size. For MT4 users it is measured in Lots and for other platforms it can be measured in thousands of units of the base currency. *(Fig 5.1)*

FIG 5.1: A BREAK DOWN OF LOT SIZES IN RELATION TO MT4

STANDARD LOT = 1.0 => 100,000 UNITS OF THE BASE CURRENCY
MINI LOT = 0.1 => 10,000 UNITS OF THE BASE CURRENCY
MICRO LOT = 0.01 => 1,000 UNITS OF THE BASE CURRENCY

As a beginner trader it is recommended to start with a smaller account size and trade with a maximum of 1 – 2% risk of your account balance per trade, which may result in dealing with Micro and Mini Lots or 1,000 – 10,000 units of the base currency, as opposed to a Standard Lot, depending on the size of your starting account balance.

It is the risk within your stop loss component that is the most essential element of the order ticket to understand as this is your exposure to the markets or collateral you have put up for the trade. If you are working with a predetermined stop loss value then the position size would need to be altered until the portion of the lot size has changed to reflect your stop loss value equal to 1% of your account balance.

The MT4 platform uses lot sizes, which does not provide dollar amounts to see exactly what the trade will cost. It is important in order for a strategic approach toward money management to be very conscious of your lot sizes in relation to your account balance.

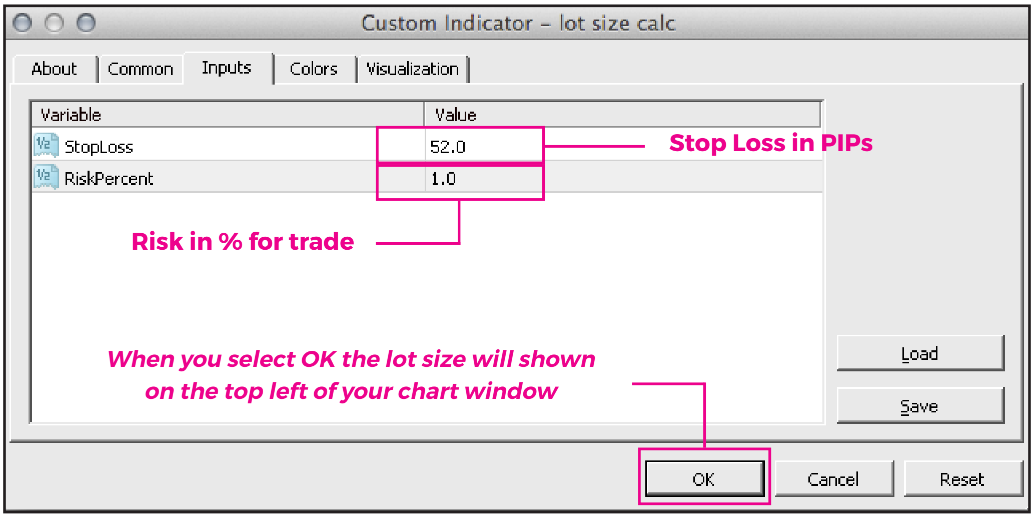
As it is ultimately unknown what trades will be successful and what trades will be unsuccessful, therefore approaching your strategy with a specific risk component of 1 or 2% is paramount and maintaining this value throughout your trading will provide a more stable outcome. The size of your trades will naturally grow on account of compounding growth if your account moves in a positive direction and the size of your trades will naturally lesson if your account balance shrinks on account of poor trading.

5.4: LOT SIZE CALCULATOR

Lot size calculators are available in the form of an indicator and can be download to be plugged in to your MT4 platform. The following calculator ***(Fig 5.3)*** is used to translate position size or lot size, based on risk percentage and the stop loss amount in PIPs. A lot size calculator will help assist you with your trade planing and placing orders. There are online versions of these calculators as can be seen from the link below. If you are trading on a mobile platform then there are apps that can be downloaded to calculate your lot size for the pair you are trading. Below are apps that are suitable for this purpose.

- **Apple iOS:** Search the App Store for Lot Size Calculator or follow this link: www.flagforex.com/lotsizecalculator
- **Android:** Search the PlayStore for Lot Size Calculator or follow this link: https://play.google.com/store/apps/developer?id=Xiaobin+Li&hl=en
- **Online Calculator:** www.myfxbook.com/forex-calculators/position-size

FIG 5.2: LOT SIZE CALCULATOR INDICATOR

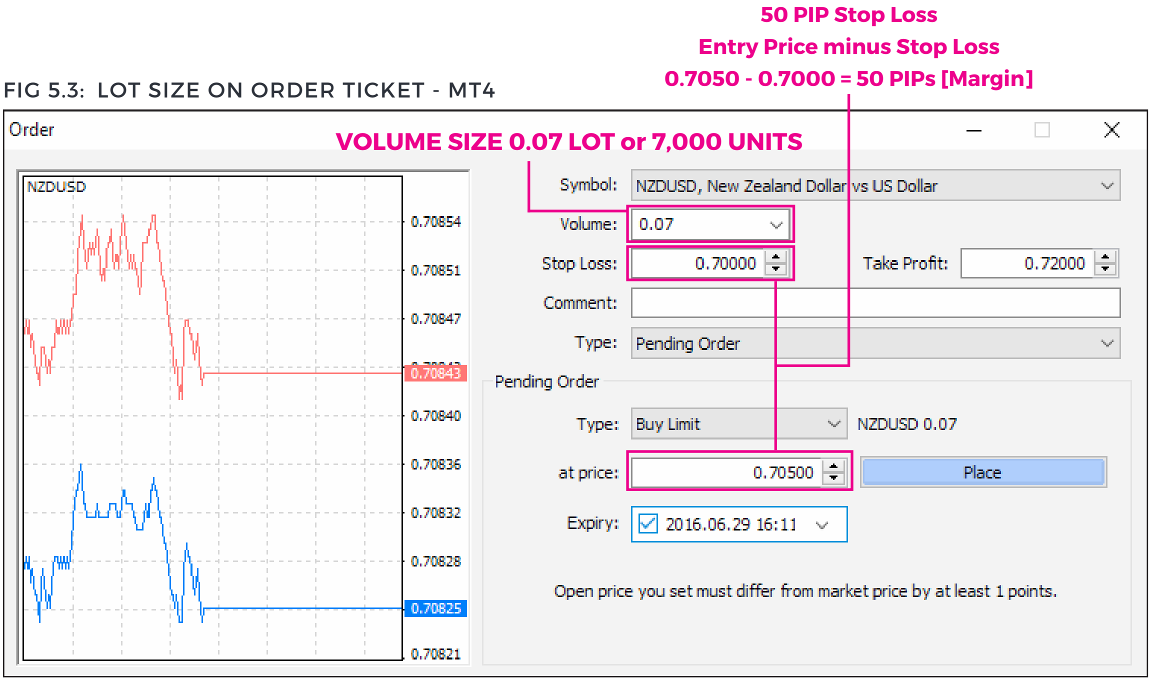


5.5: LOT SIZE ON AN MT4 ORDER TICKET

The diagram below *(Fig 5.3)* revisits the components of the order ticket and highlights the relation between the position size and lot size. The lot size can be calculated automatically by using the lot-size calculator to determine the percentage value of your account to be exposed in your stop loss. As the stop loss component represents your margin or deposit for the trade this also represents the percentage of your account that is exposed on the trade, or the risk component of the trade.

If you wish to expose 1% of your account balance per trade then the lot calculator would be used to calculate the position size or lot size required in order to house that percentage value within your stop loss component.

FIG 5.3: LOT SIZE ON ORDER TICKET - MT4



5.6: PUTTING IT ALL TOGETHER

Forex, unlike other financial instruments, allows the option to trade with large levels of leverage up to 400:1 and in some instances up to 500:1. Although forex is deemed as a high risk trading modality due to its volatile nature, in actual fact forex is much less volatile than other financial products due to its extremely minuscule movements. However, once leveraged those movements become extremely magnified creating an exaggerated risk to your trading capital. So, naturally, the lower the level of leverage used the lower the level of risk to your trading equity.

Trading forex enables the use of varying lot sizes such as standard, mini, micro and in some instances nano. The break down of lot sizes equates to different measures of units of the base currency, which in turn results in varying PIP values. The chart on the following page *(Fig 5.4)* highlights this using USD as the account currency. To calculate back into NZD you simply divide the PIP value by the NZD ask rate.

FIG 5.4: LOT SIZE PIP VALUE CHART

PIP VALUE BASED ON LOT SIZE (USD ACCOUNT)			
LOT SIZE	UNITS OF BASE CURRENCY	VOLUME	PIP VALUE (USD)
1 STANDARD LOT	100,000 UNITS	1.0	1 PIP = $10
1 MINI LOT	10,000 UNITS	0.1	1 PIP = $1
1 MICRO LOT	1,000 UNITS	0.01	1 PIP = $0.1
1 NANO LOT	100 UNITS	0.001	1 PIP = $0.01

How to calculate from USD into NZD per PIP: (using RULE #2)

Rule #2. If ACCOUNT Currency = BASE Currency then; >> (Position Size x 1 Pip) => Pip / Ask Rate = Pip Value

NZD/USD (0.7050/0.7052) - Here your account currency is the **BASE** currency. Therefore use the **ASK RATE** of the reference pair. *REFERENCE PAIR = NZD/USD >> 0.7050/0.7052*

Position size multiplied by 1 PIP divided by **ASK RATE** >> (10000 x 0.0001) / 0.7052 = $1.39

- **NZD/USD >> 10000 x 0.0001 = 1.0 >> 1.0 / 0.7210 = $1.39**

The table below *(Fig 5.5)* illustrates how leverage impacts the value of your margin required for opening a position using the various break down of lot sizes based on USD Account.

FIG 5.5: LEVERAGE/MARGIN REQUIREMENT CHART

LEVERAGE/MARGIN REQUIREMENT TABLE FOR VARIOUS LOT SIZES (BASED ON USD ACCOUNT)					
LEVERAGE	% OF MARGIN NEEDED TO OPEN 1 LOT	$ AMOUNT (MARGIN) REQUIRED FOR 1 STANDARD LOT (100,000 UNITS)	$ AMOUNT (MARGIN) REQUIRED FOR 1 MINI LOT (10,000 UNITS)	$ AMOUNT (MARGIN) REQUIRED FOR 1 MICRO LOT (1,000 UNITS)	$ AMOUNT (MARGIN) REQUIRED FOR 1 NANO LOT (100 UNITS)
25:1	4%	$4000	$400	$40	$4
50:1	2%	$2000	$200	$20	$2
100:1	1%	$1000	$100	$10	$1
200:1	0.50%	$500	$50	$5	$0.50
400:1	0.25%	$250	$25	$2.50	$0.25

A lot size in NZD/USD is not the same as a lot size in EUR/USD. PIPs will also have a different value depending on the rate of the currency used and can be calculated back to equal the margin of your trading account. To calculate your position size you first have to convert your risk into the quote currency you are trading. Next step you can calculate your position size or lot size. For the example below we are using a NZD account with $10,000 account balance and a 1% risk profile.

Step 1. Converting the risk of a $10,000 Account: (1% Risk = $100 NZD)

If your account currency (NZD) is different from the **QUOTE** Currency you can do the following: (RULE #3)
Rule #. *If ACCOUNT Currency = Neither BASE or QUOTE Currency & REFERENCE PAIR of Account Currency is the BASE Currency then; >> (Position Size x 1 Pip) => Pip Value / Ask Rate of Reference pair = Pip Value*

E.g. Trading EUR/USD; Use the Reference Pair (NZD/USD) Ask Price
Reference Pair Ask Price >> NZD/USD 0.7050/0.7052
Convert 1 NZD to USD using the Ask Price =>> 1 (USD) / 0.7052 (NZD) = $1.42 USD
Risk per trade in USD = $100 NZD / 1.42 = $70.42 USD

Step 2. Calculating the Position Size:

Position size = ((risk per trade in dollars) / PIPs risked) / PIP value per standard lot

To Calculate the Size of your Position you need to know the following:

- Your Account Size
- Your Risk Percentage per trade.
- Your Risk in dollar Amount in your Account Currency
- Stop Loss in PIPS
- PIP Value per Standard Lot of the pair traded

Let's say your account balance is $10,000 NZD and your risk profile is 1% per trade. Taking out a position on the EUR/USD with a stop loss of 50 PIPs would mean that 50 PIPs would need to reflect 1% of your account balance, or, $100 NZD.

Position size = ((risk per trade in dollars) / PIPs risked) / PIP value per standard lot

($70.42 USD / 50 PIPs) / 10 =>> 1.40 USD / 10.00 USD
= 0.14 standard lots (1.4 mini lots or 14,000 currency units)

TABLE SHOWING LOT SIZES BASED ON ACCOUNT SIZE & RISK									
ACCOUNT CURRENCY	TRADED PAIR	REFERENCE PAIR	REFERENCE PAIR (ASK PRICE)	ACCOUNT BALANCE $	RISK RATIO %	STOP LOSS (PIPS)	RISK $	LOTS	UNITS
NZD	AUD/USD	NZD/USD	0.7170	10,000	1.0	45	100	0.159	15,900
NZD	CAD/JPY	NZD/JPY	72.69	10,000	1.0	42	100	0.173	17,300
NZD	GBP/NZD	GBP/NZD	1.7917	10,000	1.0	52	100	0.192	19,200
NZD	USD/CAD	NZD/CAD	0.9302	10,000	1.0	51	100	0.182	18,200
NZD	EUR/AUD	AUD/NZD	1.0572	10,000	1.0	50	100	0.200	20,000
NZD	AUD/JPY	NZD/JPY	72.69	10,000	1.0	48	100	0.151	15,100
NZD	GBP/USD	NZD/USD	0.7170	10,000	1.0	46	100	0.156	15,600

REVIEW

SUMMARY

This section examined the position size of an order in relation to units of the base currency or financial instrument being traded as well as taking a look at the lot size measurement or volume used to determine the position size.

Leverage was also covered in this section, how this operates and why it is necessary to use in order to trade forex. We took a look at lot size calculators to formulate position sizing relative to the stop loss value component, also referred to as your margin.

QUESTIONS

1. What is a Position?
2. What are a standard lot, mini lot and micro lot?
3. Explain how leverage operates
4. Explain the purpose of a lot size calculator

ANSWERS

1. A position is the value of the trade on the market place expressed as the culmination of the traders, broker's and liquidity providers' components to the trade represented by the traders margin, the brokers leverage and the liquidity providers' capital.

2. A standard lot is the measurement used when trading a financial instrument and is equivalent to 100,000 units of the base currency, a mini lot is equivalent to 10,000 units of the base currency and a micro lot is equivalent to 1,000 units of the base currency.

3. Leverage operates as a way to magnify the traders' position when trading minor fluctuation measurements such as the PIP in forex trading. Leverage can be offered at various ratios depending on the broker, whilst some level of leverage is vital to trading forex, too much leverage ultimately exposes too much risk due to the volatility of the forex markets.

4. A lot size calculator works to determine the lot size required for a trade in order to reflect a certain percentage of one's account balance when trading.

CHECKLIST

Below is a checklist of the main points covered in this introduction Section-5 of Module-1, ‘Setup phase – MT4’.

- ☐ A position size if the overall trade value as a result of the traders, brokers and liquidity providers’ nput to the retail trader.
- ☐ A lot size, or variation of, is the measurement used in forex trading and other financial instruments encompassing a set amount of units of the base currency being traded.
- ☐ The broker provides leverage to traders or investors in order to magnify positions on the market so traders can take advantage of minor fluctuations creating tradable products with a lower entry investment amounts.
- ☐ A lot size calculator is a very handy tool to translate the trading language of lots sizes and positions sizing into a basic percentage value of your trading account to determine the correct values are being used for risk and money management strategies

NOTES

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SETTING THE STANDARD

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