MBT
Quote API 1.5

MB Trading

1926 E. Maple 1st Floor
El Segundo, CA 90245-3001

Reference Number	**Version 1.5**
Drafted	**08/13/2001**
Last Updated	**01/15/2009**

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Introduction

This document details the expected and supported fields used when connecting to the MBT Quote Server.

Connection

The MBT Quote Server accepts standard TCP/IP connections. Data will be accepted and transmitted, as per the protocol below, along this connection. A demo or production username will be assigned to you. The port is 5020.

To obtain the proper IP/dns name for the target quote server, prior to login, a client application must send an https POST request to https://www.mbtrading.com/secure/getquoteserverxml.asp along with two required parameters, 'username' and 'password'. Both of these parameters must be sent in plaintext (though the URL is secure). The webserver will return an XML recordset in the following format:

```
<xml>
<logins username="MYUSERNAME" quote_server="123.123.123.123"/>
</xml>
```

Note: although this script currently returns an IP, it may in the future return a DNS name instead, so clients should code accordingly.

The following html page demonstrates this request using a browser-based form, though a direct https request is what most clients will likely utilize:

```
<html>
<body onLoad="javascript:document.form1.submit();">
<form method="POST"
action="https://www.mbtrading.com/secure/getquoteserverxml.asp"
name="form1">
  <input type="hidden" name="username" value="MYUSERNAME"
  <input type="hidden" name="password" value="MYPASSWORD">
</form>
</body>
</html>
```

Sessions

The MBT Quote session begins with a login request. If the login is accepted, subsequent requests will be accepted and parsed. If the login request is not accepted, the user will receive a message noting the reason for the login denial, and no further messages will be accepted. A session is assumed to end once the connection is closed. If a client requests data for something that is already requested, that 2nd request will be ignored. If a request is made for a symbol for which you are not permissioned, the request will be ignored with no reason.

For testing purposes, symbol requests are limited. Once all testing is complete, these restrictions are subject to review, and may be increased.

Messages

Messages are formatted with a single character message type followed by a '|' (pipe) delimiter. The fields that comprise the data for that message follow a "tag=value" format, in no particular order. tag=value pairs are semicolon delimited (e.g. …tag=value;tag=value;tag=value…). A message is considered complete when a '\n' (NewLine) character is received. For example, a logon message, an acceptance message, and a denial message, all look as follows:

L|100=USERNAME;101=PASSWORD\n	(request to log in)
G|100=USERNAME;8055=prc110\n	(accepted)
D|100=USERNAME;103=Invalid Username\n	(denied, with the reason for denial)

Further examples are given with each message, below. Level I, Level II/Market Depth, Time and Sales, Fundamental and Options messages will not always contain all fields applicable to that quote every single time. For instance, a new Level I quote will contain all fields applicable to that quote. However, subsequent Level I messages for that security will only contain fields which have changed.

Client/Inbound Application Messages

The server accepts Login requests, subscription requests (Level 1, Level 2/Market Depth, fundamental, and options chains) and unsubscription requests. Each of these messages, along with the fields that comprise the message, are defined below.

Logging on (L):

Valid Fields:

FieldID	FieldName	Field Description
100	UserName	The login name
101	Password	The password for this username

Example:

```
L|100=USERNAME;101=PASSWORD\n
```

Subscription (S):

Valid Fields:

FieldID	FieldName	Field Description
1003	Symbol	The symbol whose data is requested
2000	Subscription Type	The type of subscription desired; valid values are 20000=Level 1, 20001=Level 2/Market Depth, 20002=Both Level 1 and Level 2/Market Depth, 20003=Trades, 20004=Options Chains

Examples:

```
S|1003=EUR/USD;2000=20000\n
S|1003=MSFT;2000=20000\n
```

Unsubscription (U):

Valid Fields:

FieldID	FieldName	Field Description
1003	Symbol	The symbol whose data is requested
2000	Subscription Type	The type of subscription desired; valid values are 20000=Level 1, 20001=Level 2/Market Depth, 20002=Both Level 1 and Level 2/ Market Depth, 20003=Trades, 20004=Options Chains

Examples:

```
U|1003=EUR/USD\n
U|1003=MSFT\n
```

Fundamental (H):

Valid Fields:

FieldID	FieldName	Field Description
1003	Symbol	The symbol whose data is requested.
2000	Quote Subscription Type	20000=Level 1; 20001 = Level 2 (Market Depth).

Examples:

`H|1003=EUR/USD\n` (will return one response containing the fundamental data for Eurodollar/US Dollar)
`H|1003=MSFT\n` (will return one response containing the fundamental data for Microsoft)
`H|2000=20000; 1003=MSFT \n` (will return the fundamental data for Microsoft and begin a Level 1 quote feed for that symbol)

Ping/Heartbeat (9):

Valid Fields:

No Fields used. Simply send a tag 9 and you will receive tag 9 back immediately. There is no value associated with this tag.

Example:

```
9|
```


Server/Outbound Application Messages

The server returns Login accept, logon deny, Level 1, Level 2/Market Depth, Time&Sales, and Options Chains updates. Each of these messages, along with the fields that comprise the message, are defined below.

Logon accepted (G):

Valid Fields:

FieldID	FieldName	Field Description
100	UserName	The user you successfully logged in with.
8055	InfoMsgFrom	ID of the current Quote Server to which you have connected. Useful to tech support.

Example:

```
G|100=USERNAME;8055=prc110\n
```

Logon denied (D):

Valid Fields:

FieldID	FieldName	Field Description
100	UserName	The user for which you were denied login.
103	LoginReason	A text field specifying why it was denied

Example:

```
D|100=USERNAME;103=Invalid username\n
```

Level 1 Update (1):

Important: Not all fields will be supplied with every message. The first level one response will contain all applicable fields. However, any subsequent updates will only contain the symbol and the information that has changed.

Valid Fields:

FieldID	FieldName	Field Description
1003	Symbol	The symbol whose data is requested
2002	Last Price	The price at which the security last traded, in decimal.
2003	Last Bid	The last bid for this security.
2004	Last Ask	The last ask for this security.
2005	Last Bid Size	The size associated with the last bid.
2006	Last Ask Size	The size associated with the last ask.
2007	Last Size	The number of shares/pair quantity that last traded.
2008	Prev. Close	Yesterday’s close for this security.
2009	High	The High for today.

2010	Low	The Low for today.
2011	Open	The open for today.
2012	Total Volume	The total volume traded for today.
2013	Current Tick	Uptick/Downtick status – possible values are: 20020=uptick and 20021=downtick.
2014	TimeStamp	HH:MM:SS for this update.
2015	Date	The date for which this applies to, formatted as MM/DD/YYYY.
2042	Last Exchange	The exchange where the last trade occurred.
2035	Strike Price	The strike price for options
2041	Contract Size	The default contract size for options
2038	Put/call	Put/call indicator
2036	Exp Month	Expiration Month
2040	Exp Year	Expiration Year
2037	Open Interest	The open interest for options

Examples:

```
1|2002=1.2087;2003=1.2085;2004=1.2087;2008=1.2143;2009=1.2125;2010=1
.2062;2011=1.2113;2013=20021;2005=20000000;2006=24000000;2014=05:15:
38;2015=01/19/2006;1003=EUR/USD

1|2002=30.41;2003=30.41;2004=30.42;2008=30.63;2009=30.69;2010=30.34;
2011=30.6;2013=20020;2007=100;2012=5638773;2005=5500;2006=14500;2014
=05:18:53;2015=01/19/06;2042=PSE;1003=DELL
```

Level 2/Market Depth Update (2):

Valid Fields:

FieldID	FieldName	Field Description
1003	Symbol	The symbol whose data is requested
2016	MPID	The Market Participant being updated. If the same value is received twice, discard the older data, and replace with the data from the new message.
2017	Quote Side	The side which this update refers; valid values are 20010=bid, 20011=offer. This, combined with the MPID, is the unique key on the information.
2018	Quote Price	The price to update this quote to.
2019	MMID Size	The size to update this quote to.
2020	MMID Time	The time of the update (format: hh:mm:ss)
2024	MMID Status	Whether or not the MPID is open for trading; valid values are “O” and “K”.
2033	MMID Source	If this is a “Book” update, this field will be sent, denoting the type of book, i.e., INET, ARCA, etc.

Examples:

```
2|2020=05:32:18;2024=O;2019=5000000;2018=1.2088;2017=20011;2016=TDFX
12088;1003=EUR/USD
2|2020=05:32:18;2024=O;2019=10000000;2018=1.2085;2017=20010;2016=TDF
X12085;1003=EUR/USD
```



```
2|2016=ARCX;2017=20011;2018=30.42;2019=8200;2024=O;2020=05:21:16;100
3=DELL\n
2|2016=CINN;2017=20011;2018=30.42;2019=13500;2024=O;2020=05:21:16;10
03=DELL\n
```

Time&Sales Update (3):

Valid Fields:

FieldID	FieldName	Field Description
1003	Symbol	The symbol whose data is requested
2014	Level 1 Timestamp	The time of the update (format: hh:mm:ss)
2002	Price	The price at which this trade occurred
2007	Size	The volume associated with this trade
2022	Exchange	The exchange where this trade occurred.
2039	Time&Sales Type	Values either: 30030= Normal or 30031= Form T
2082	Tick Condition	See “Tick Condition” below. Others may be sent by the exchange. Undocumented values should just be ignored.
2083	Tick Status	Values are: Normal = 0, Filtered = 1, Out of Sequence = 2, Deleted = 3
2084	Tick Type	Values are: Trade = 0, Bid = 1, Ask = 2

Example:

```
3|1003=MSFT;2014=10:00:00;2002=27.50;2007=1000;2022=NAS\n
```

(See Tick Conditions below)

Tag 2082 – Tick Condition

// Trades
tcTrade_RegularSale = 0,
tcTrade_Acquistion = 1,
tcTrade_Distributio n = 2,
tcTrade_Split = 3,
tcTrade_Cash_ Sale = 5,
tcTrade_NextDaySale = 6,
tcTrade_SellerSale = 7,
tcTrade_Rule155 = 8,
tcTrade_SoldLastSal e = 9,
tcTrade_OpenSale = 10,
tcTrade_OutOfSequen ce = 11,
tcTrade_Reopen = 17,
tcTrade_Stopped = 21,
tcTrade_Bunched = 22,
tcTrade_BunchedSold = 23,
tcTrade_MidPrice = 27,
tcTrade_Settlement = 28,
tcTrade_FormT = 29,
tcTrade_LateOpen = 30,
tcTrade_AutoExecute = 31,
tcTrade_IntradayDet ail = 32,
tcTrade_OpeningDeta il = 33,
tcTrade_Rule127 = 34,
tcTrade_PriorRefere ncePrice = 41,
tcTrade_LastTrade = 42,
tcTrade_DirectPlus = 43,
tcTrade_YellowFlag = 44,
tcTrade_Intermarket Sweep = 45,
tcTrade_Derivativel yPriced = 46,
tcTrade_CapElection Trade = 47,
tcTrade_ClosePrice = 49,
tcTrade_AveragePric e = 53,
tcTrade_BasketIndex Close = 55,

// Quote Conditions
tcQuote_RegularQuot e = 100,
tcQuote_OfferDepth = 101,
tcQuote_Opening = 104,
tcQuote_Closing = 105,
tcQuote_NewsDistribution = 106,
tcQuote_FastMarket = 107,
tcQuote_NonFirm = 110,
tcQuote_NewsPending = 111,
tcQuote_DueToRelate d = 112,
tcQuote_OrderImbala nce = 114,
tcQuote_NoOpenResum e = 115,
tcQuote_Halted = 128,
tcQuote_Suspended = 136,
tcQuote_OutOfSequen ce = 137,
tcQuote_Restricted = 138,
tcQuote_QuoteReques t = 149,
tcQuote_QuoteResume = 150,
tcQuote_TradeResume = 151

Fundamental Data Response (N):

Valid Fields:

FieldID	FieldName	Field Description
1003	Symbol	The symbol whose data is requested
2021	Company Name	The name of the company or security name for this symbol
2022	Exchange	The exchange where this security is traded – valid values are “FX”, “NYSE”, “AMEX”, “NNM”, “SCM”, the last of which are Nasdaq Stock types.
2023	UPC Info	For Nasdaq Stocks, the UPC 11830 information; for Listed securities, this is the 19c3 status.
2025	Country	The country which the symbol primarily trades (“US”)
2026	Currency	The currency in which the symbol primarily trades (“USD”)
2027	TickSize	The increments which the posted bid/offer can move.
2028	Cusip	The cusip for the symbol, if available.
2029	ISIN	The ISIN code for the symbol, if available.
2031	Margin Multiplier	The rate at which this stock can be margined..
2032	Trading Status	For retail clients, an indicator of whether or not the stock is marginable, or shortable.
1011	Request Rejected	Reason that the request was rejected, if no other data is supplied.

Examples:

```
N|2021=Euro Dollar/United States Dollar;2022=FX;2023=;2025=US;
2026=USD;1003=EUR/USD

N|2023=N;2022=NNM;2021=Dell Computer Corporation - Common
Stock;1003=DELL;2022=NNM;2025=US;2026=USD;2027=.01\n
```

Options Chains Update (4):

Valid Fields:

FieldID	FieldName	Field Description
1003	Symbol	The option symbol whose data is requested
2034	Underlier	The underlying symbol
2002	Last Price	The price at which the option last traded, in decimal.
2003	Last Bid	The last bid for this option.
2004	Last Ask	The last ask for this option.
2005	Last Bid Size	The size associated with the last bid.
2006	Last Ask Size	The size associated with the last ask.
2007	Last Size	The number of shares that traded last.
2008	Prev. Close	Yesterday’s close for this option.
2009	High	The High for today.
2010	Low	The Low for today.
2011	Open	The open for today.
2012	Total Volume	The total volume traded for today.
2013	Current Tick	Uptick/Downtick status – possible values are: 20020=uptick and 20021=downtick.
2014	TimeStamp	HH:MM:SS for this update.
2015	Date	The date for which this applies to, formatted as MM/DD/YYYY.
2035	Strike Price	The strike price
2041	Contract Size	The default contract size
2038	Put/call	Put/call indicator
2036	Exp Month	Expiration Month
2040	Exp Year	Expiration Year
2037	Open Interest	The open interest

Example:

```
4|1003=+CYQJW;2034=CSCO;2002=1.95;2003=1.95;2004=2.00;2005=549;2006=1850;2007=420;
2008=2.02;2009=2.09;2010=1.85;2011=1.99;2012=10929000;2013=20020;2014=15:05:02;201
5=01/15/2006\n
```