

MDF Messages Reference

Reference Guide

21 July 2021

Introduction

Since the Millistream Data Feed is a subscriptions based feed, only the instruments and messages that the client has issued subscriptions for (and for which the client has authorization for) is sent to the client by the server. Subscribing to data is performed by sending requests to the server, requesting either an image request (to see the current snapshot for the instrument(s)/message) or a stream request (subscription to real-time [or delayed, depending upon authorization] data as a push based stream of updates).

Normally clients issue so called full requests which is a combined image and stream request, this will give a snapshot as the starting point and a data stream with updates to that snapshot as there are changes in the market.

When an update happens in the market, only the modified fields will be sent (messages that create new records [such as trades, news, corporate actions and price history] will be sent as if the previous value for each field was null).

For example, let's imagine an equity with the following values for its Quote message:

Bid Price=22.50, Ask Price = 22.70

Now there has been a change of the Ask Price in the market, the Quote message will be sent like this:

Ask Price = 22.80

And the client has to modify the instrument's state to:

Bid Price = 22.50, Ask Price = 22.80

If the Bid Price would be revoked at the market, the Quote message will be sent like this:

Bid Price = NULL

And the client thus now have an instrument state of:

Ask Price = 22.80

Administrative Messages

Login Request			
<i>mref</i>	MDF_M_LOGON #1		
<i>mclass</i>	MDF_MC_UNDEF		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_USERNAME	Username	Y	
MDF_F_PASSWORD	Password	Y	
MDF_F_S1	Application	N	Optionally inform the Millistream server about the name (and possible version) of the application.
MDF_F_EXTRACREDENTIAL	Extra Credentials	N	Used to provide extra credentials if the account is setup to use two-factor authentication.

This must be the first message sent by the client. If the account is configured to use two-factor authentication, the **MDF_F_EXTRACREDENTIAL** is required and should contain the data from the smart card (or whatever mechanism is used). This data will then be sent to the external authentication service configured for the account. Exactly how this is done is dependent upon each specific authentication service used.

Log Off			
<i>mref</i>	MDF_M_LOGOFF #2		
<i>mclass</i>	MDF_MC_UNDEF		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_LOGOFFREASON	Logoff reason	N	If the server issued the connection to terminate, this field will contain the reason.

The Log Off message can be sent by either the server or the client indicating to the other peer that the connection will be terminated. At either end for whatever reason. If the server issued the Log Off message, the **MDF_F_LOGOFFREASON** will be present in the message and it will contain the reason for the termination, the reason will be prefixed with a numerical value (401 for authentication failure and 503 if the server is shutting down).

Logon Greeting			
<i>mref</i>	MDF_M_LOGONGREETING #3		
<i>mclass</i>	MDF_MC_UNDEF		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_SERVERNAME	Server Name	Y	The name of the server the client is connected to
MDF_F_SERVERTIME	Server Time	Y	The current time on the server in UTC
MDF_F_SERVERDATE	Server Date	Y	The current date on the server

When the client has successfully logged in to the server, the server will send a Logon Greeting message to the client, if the logon would fail the client would get a Log Off message instead.

Messages Reference

<i>mref</i>	MDF_M_MESSAGESREFERENCE #0		
<i>mclass</i>	MDF_MC_UNDEF		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
...	...	Y	

The Messages Reference message will be sent directly after a connection if it detects that the clients version of the templates is too old. The message is also sent in realtime whenever the version on the server is changed. It cannot be requested and cannot be unsubscribed.

This message is normally only used by the API internally to synchronize the message templates between the server and the API, but it is also exposed to the client since it can be useful for clients wanting to automatically learn about new messages and their corresponding fields.

insref does not identify any instrument for this message, instead it represents the template version, the API will bookkeep this value internally and will send it to the server upon the next connection in order to avoid having to receive the templates on every connect if the version has not changed.

Each field in this message represents a message, I.e the field tag is the **mref** of the message to define and the field value will contain a pipe separated (|) string with the following fields:

1. '0' if **insref** represents an instrument, '1' if it does not.
2. '0' if each update modifies the message image, I.e a new Bid Price in a Quote message overwrites the old Bid Price in the message image. '1' if each update creates a new record, I.e a Trade message creates a new record for each received trade and all previously received trade records are still valid (there are a few exceptions to this rule in where it is possible to send out corrections for the records).
3. The **mclass** of the message
4. A space separated list of the field tags defined for the message

Instrument Delete

<i>mref</i>	MDF_M_INSTRUMENTDELETE #17		
<i>mclass</i>	All Message Classes		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_MARKETPLACE	Marketplace	N	Present and with the value of the new marketplace if the instrument moved outside of the account's entitlements due to change of marketplace.

A Instrument Delete message will be sent when an instrument is to be deleted. It will only be sent in realtime on stream or full requests. If an instrument is deleted prior to an image request, the instrument will not be sent at all.

Request Messages

Request			
<i>mref</i>	MDF_M_REQUEST #19		
<i>mclass</i>	MDF_MC_UNDEF		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_REQUESTCLASS	Request Class	Y	Can contain a space separated list (use mdf_message_add_list() to add this fields efficiently) of the request classes you want to request. If it contains the single character "*" the request will be for all request classes that the account is entitled for.
MDF_F_REQUESTTYPE	Request Type	Y	If Request Class is MDF_RC_INSREF , this field should be used to inform the server about the number of insrefs wanted. If the requested number of insrefs cannot be fulfilled, the request fails in full.
MDF_F_REQUESTID	Request Id	N	If present, the value of this field will be sent with a Request Finished message when the image request has been completed in full.
MDF_F_INSREFLIST	Insref List	N	Can contain a space separated list (use mdf_message_add_list() to add this field efficiently) of the insrefs to request. If it contains the single character "*" the request will be for all instruments available for the account.

This is the message that the client uses to request data from the server. Either realtime streaming data or snapshot image data can be requested (or full for a combination request). The current filtering capability is to separate on message type using the Request Class and a specified list of instruments with the Insref List.

Unsubscribe			
<i>mref</i>	MDF_M_UNSUBSCRIBE #31		
<i>mclass</i>	MDF_MC_UNDEF		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_REQUESTCLASS	Request Class	Y	Can contain a space separated list (use mdf_message_add_list() to add this fields efficiently) of the request classes you want to unsubscribe. If it contains the single character "*" the request will be for all request classes that the account is entitled for.
MDF_F_REQUESTID	Request Id	N	If present, the value of this field will be sent in a Request Finished message when the unsubscribe request has been completed.
MDF_F_INSREFLIST	Insref List	N	Can contain a space separated list (use mdf_message_add_list() to add this field efficiently) of the insrefs to unsubscribe. If it contains the single character "*" the unsubscription will be for all instruments available for the account.

This is the message that the client uses to unsubscribe from the realtime streaming data from the server.

Request Finished			
<i>mref</i>	MDF_M_REQUESTFINISHED #20		
<i>mclass</i>	MDF_MC_UNDEF		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_REQUESTID	Request Id	Y	The same value that was sent in the request/unsubscribe message.
MDF_F_REQUESTSTATUS	Request Status	Y	'100' if the request was completed successfully. Or '101' if the request failed.

This message will only be sent if a Request Id was present in the Request (only if the request was for an image or full request) or Unsubscribe message.

Insref			
<i>mref</i>	MDF_M_INSREF #21		
<i>mclass</i>	MDF_MC_UNDEF		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_INSREFLIST	Insref List	Y	

The assigned insrefs as a reply to a **MDF_RC_INSREF** request.

News Message

News Headline			
<i>mref</i>	MDF_M_NEWSHEADLINE #4		
<i>mclass</i>	MDF_MC_NEWSHEADLINE		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_NEWSID	News Id	Y	
MDF_F_NEWSIDREPLACE	Replace Id	N	This news item replaces the news item that matches this news id.
MDF_F_LANGUAGE	Language	N	
MDF_F_HEADLINE	Headline	N	
MDF_F_DATE	Date	N	
MDF_F_TIME	Time	N	
MDF_F_NEWSCODINGCOMPANY	News Coding Company	N	
MDF_F_NEWSCODINGTYPE	News Coding Type	N	
MDF_F_NEWSCODINGSUBJECT	News Coding Subject	N	
MDF_F_NEWSCODINGCOUNTRY	News Coding Country	N	
MDF_F_NEWSCODINGORIGINAL	News Coding Original	N	
MDF_F_NEWSCODINGISIN	News Coding ISIN	N	
MDF_F_NEWSCODINGREGULATORY	News Coding Regulatory	N	
MDF_F_NEWSCODINGTAGS	News Coding Tags	N	
MDF_F_NEWSCODINGIMPACT	News Coding Impact	N	
MDF_F_NEWSRANK	News Rank	N	

This message will carry the headline and the news coding for the news item. The actual news content will be sent in one or several News Content messages, each with the same News Id to identify the news item.

Several News Headline messages can be sent with the same News Id in order to send corrections or to add fields, for example it is very common for the first News Headline message to not include any news coding at all (to keep the latency low), with the news coding in a second message.

News Content			
<i>mref</i>	MDF_M_NEWSCONTENT #22		
<i>mclass</i>	MDF_MC_NEWSCONTENT		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_NEWSID	News Id	Y	
MDF_F_TEXTBODY	Text Body	Y	The news content block to be concatenated with the previously sent news blocks.
MDF_F_NEWSBLOCKNUMBER	News Block Number	Y	
MDF_F_NEWSISLASTBLOCK	News Is Last Block	N	Present in the last news block



This message will carry the actual news content, exceptionally large news content (or when the news source is distributing their data segmented) will be split into news blocks that will be sent as individual News Content messages, each with the same News Id and with an increasing News Block Number.

Currently there will be no corrections to the news content, and all news blocks will be sent in order without any gaps. The very last news block (which can be the first block for a small news item) will have the News Is Last Block field present, currently with the value '1', but that is of less importance since the mere presence of the field marks this as the last news block for the news item.

The news content will be in a special XML format, see the *News Format* document for more information.

Order Book Messages

The order book in the Millistream Data Feed can be sent using either a Market By Order (MBO) model or a Market By Level (MBL) model.

In the MBO model, each order is sent individually and is usually sourced from a special low latency “total view” feed from the exchange which for some exchanges requires an additional exchange license fee.

In the MBL model, the orders with the same price are aggregated as a single level. The number of levels are usually restricted to a max of 5 per side (bid/ask) and rate limiting can be implemented making the MBL the easier but also higher latency solution.

Not all exchanges provides a MBO, but for all that do we will always also present a MBL (the MBL is then created from the MBO by us).

Order Book Flush		
Tag	Req'd	Comments
<i>mref</i>		MDF_M_ORDERBOOKFLUSH #14
<i>mclass</i>		MDF_MC_ORDER MDF_MC_MBO MDF_MC_QUOTEBO
MDF_F_I1	Y	Bitfield that specifies for which type of Order Book messages that should be flushed. Valid values: <ul style="list-style-type: none"> • 1 – Flush MDF_MC_ORDER data • 2 – Flush MDF_MC_MBO data • 4 – Flush MDF_MC_QUOTEBO data • 8 – The flush was sent as a reply to a Image/Full request just before the image of the order is sent.

The Order Book Flush indicates that the client should clear out (destroy) the whole order book for the instrument specified, both the bid and ask sides should be removed and all data received from a QuoteBBO message should be discarded, exactly which data that should be cleared/discarded/flushed will be indicated by the **MDF_F_I1** field.

Will be sent as the first message in reply to a **MDF_RC_ORDER** / **MDF_RC_MBO** image or full request to make sure that the client will clear out any stale order levels (or orders) before receiving the order book image (which will be sent as a series of inserts/adds). For **MDF_RC_MBO** requests from a point in time, a flush will only be sent if there have been deletes sent on the instrument in the time between the requested “point in time” and the “time of the request”.

Market By Level Messages

The MBL order book in the Millistream Data Feed uses a insert/update/delete model. Levels are created with the insert messages, removed with the delete messages and modified by the update messages.

When a level is created, all levels equal to and higher than that level will be moved down one level, I.e an insert on level #2 will change the existing level #2 to level #3, level #3 to level #4 and so on. Level deletions will remove the indicated level and move all levels higher than that level up one level, I.e a delete on level #2 will change the existing level #3 to level #2, level #4 to level #3 and so on.

This means that the client must build the order book in memory and rearrange the levels as it receives insert and delete messages. The bid and ask side live in completely separate worlds, so a insert/delete on the bid side will have no impact on the ask side.

It is important that the client stay synchronized with the server, so only image or full requests are recommended. Further, the server will always send a **MDF_M_ORDERBOOKFLUSH** message before the actual order book image for a instrument to make sure that the client is truly in sync. The order book flush can also be sent out during trading by the

market place if a instrument is to resume trading after for example a trade halt. When receiving this message, the client should remove all order book levels for the instrument in question.

Clients requesting order book messages will also receive **MDF_M_INSTRUMENTRESET** messages before trading commences on a trading day, this message should be treated like an order book flush and the client should thus remove all order book levels for the instrument in question.

Bid Level Insert			
<i>mref</i>	MDF_M_BIDLEVELINSERT #7		
<i>mclass</i>	MDF_MC_ORDER		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_ORDERLEVEL	Order Level	Y	
MDF_F_BIDPRICE	Bid Price	N	
MDF_F_BIDQUANTITY	Bid Quantity	N	
MDF_F_NUMBIDORDERS	Number of Bid Orders	N	
MDF_F_BIDCOUNTERPART	Bid Counterpart	N	
MDF_F_MMO	Market Maker Order	N	The presence of this field specifies that there are protected market maker orders at this level on the bid side.

The Bid Level Insert message will create a new order book level on the bid side

Bid Level Update			
<i>mref</i>	MDF_M_BIDLEVELUPDATE #11		
<i>mclass</i>	MDF_MC_ORDER		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_ORDERLEVEL	Order Level	Y	
MDF_F_BIDPRICE	Bid Price	N	
MDF_F_BIDQUANTITY	Bid Quantity	N	
MDF_F_NUMBIDORDERS	Number of Bid Orders	N	
MDF_F_BIDCOUNTERPART	Bid Counterpart	N	
MDF_F_MMO	Market Maker Order	N	The presence of this field specifies that there are protected market maker orders at this level on the bid side.

The Bid Level Update modifies the specified bid level in the order book

Bid Level Delete			
<i>mref</i>	MDF_M_BIDLEVELDELETE #9		
<i>mclass</i>	MDF_MC_ORDER		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_ORDERLEVEL	Order Level	Y	

The Bid Level Delete message removes the specified bid level in the order book

Ask Level Insert			
<i>mref</i>	MDF_M_ASKLEVELINSERT #8		
<i>mclass</i>	MDF_MC_ORDER		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_ORDERLEVEL	Order Level	Y	
MDF_F_ASKPRICE	Ask Price	N	
MDF_F_ASKQUANTITY	Ask Quantity	N	
MDF_F_NUMASKORDERS	Number of Ask Orders	N	
MDF_F_ASKCOUNTERPART	Ask Counterpart	N	
MDF_F_MMO	Market Maker Order	N	The presence of this field specifies that there are protected market maker orders at this level on the ask side.

The Ask Level Insert message will create a new order book level on the ask side

Ask Level Update			
<i>mref</i>	MDF_M_ASKLEVELUPDATE #12		
<i>mclass</i>	MDF_MC_ORDER		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_ORDERLEVEL	Order Level	Y	
MDF_F_ASKPRICE	Ask Price	N	
MDF_F_ASKQUANTITY	Ask Quantity	N	
MDF_F_NUMASKORDERS	Number of Ask Orders	N	
MDF_F_ASKCOUNTERPART	Ask Counterpart	N	
MDF_F_MMO	Market Maker Order	N	The presence of this field specifies that there are protected market maker orders at this level on the ask side.

The Ask Level Update modifies the specified ask level in the order book

Ask Level Delete			
<i>mref</i>	MDF_M_ASKLEVELDELETE #10		
<i>mclass</i>	MDF_MC_ORDER		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_ORDERLEVEL	Order Level	Y	

The Ask Level Delete message removes the specified ask level in the order book

Market By Order Messages

MBO Add Order			
<i>mref</i>	MDF_M_MBOADD #39		
<i>mclass</i>	MDF_MC_MBO		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_ORDERID	Millistream Order ID	Y	The Millistream created id for this order, unique in combination with insref.
MDF_F_ORDERSIDE	Order Side	Y	Defines if this is a Bid or Ask order.
MDF_F_ORDERPRICE	Order Price	Y	Can be NULL if the order is a Market Order, which is then sent explicitly.
MDF_F_ORDERQUANTITY	Order Quantity	Y	
MDF_F_ORDERPARTICIPANT	Order Participant	N	Exchange member if the marketplace does not employ pre-trade anonymity.
MDF_F_MMO	Market Maker Order	N	The presence of this field specifies that this order is a protected market maker order.
MDF_F_ORDERPRIORITY	Order Priority	N	The priority of this order among orders on the same side and with the same price, lowest value have the highest priority. Not all marketplaces uses a priority.
MDF_F_ORDERIDSOURCE	Source Order ID	N	The Order ID used by the marketplace, if available.

MBO Order Update			
<i>mref</i>	MDF_M_MBOUPDATE #40		
<i>mclass</i>	MDF_MC_MBO		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_ORDERID	Order ID	Y	The Millistream created id for this order, unique in combination with insref.
MDF_F_ORDERPRICE	Order Price	N	The new price if the price of the order is to be updated, otherwise not present.
MDF_F_ORDERQUANTITY	Order Quantity	N	The new quantity of the quantity of the order is to be updated, otherwise not present.
MDF_F_ORDERPRIORITY	Order Priority	N	The new priority if the priority of the order have changed, otherwise not present.
MDF_F_ORDERIDSOURCE	Source Order ID	N	The new marketplace Order ID if this update is a Cancel-Replace and the marketplace have generated a new Order ID for the replace order.

MBO Order Delete			
<i>mref</i>	MDF_M_MBODELETE #41		

<i>mclass</i>	MDF_MC_MBO		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_ORDERID	Order ID	Y	The Millistream created id for this order, unique in combination with insref.

Quote Messages

Quote Last Sale			
<i>mref</i>	MDF_M_QUOTE #5		
<i>mclass</i>	MDF_MC_QUOTE		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_BIDPRICE	Bid Price	N	Best Bid Price
MDF_F_ASKPRICE	Ask Price	N	Best Ask Price
MDF_F_BIDQUANTITY	Bid Quantity	N	Quantity at Best Bid
MDF_F_ASKQUANTITY	Ask Quantity	N	Quantity at Best Ask
MDF_F_LASTPRICE	Last Price	N	The last paid price today, if there has been no trades today, the value is null.
MDF_F_VWAP	VWAP	N	Volume Weighted Average Price
MDF_F_DAYHIGHPRICE	Day High Price	N	The highest paid price today
MDF_F_DAYLOWPRICE	Day Low Price	N	The lowest paid price today
MDF_F_QUANTITY	Quantity	N	The total quantity for today
MDF_F_INTERNALQUANTITY	Internal Quantity	N	Part of the total quantity that is for internal trades
MDF_F_OFFBOOKQUANTITY	Off-Book Quantity	N	Part of the total quantity that is for Off-Book trades
MDF_F_DARKQUANTITY	Dark Pool Quantity	N	Part of the total quantity that is for Dark Pool trades
MDF_F_TURNOVER	Turnover	N	The total turnover for today
MDF_F_INTERNALTURNOVER	Internal Turnover	N	Part of the total turnover that is for internal trades
MDF_F_OFFBOOKTURNOVER	Off-Book Turnover	N	Part of the total turnover that is for Off-Book trades
MDF_F_DARKTURNOVER	Dark Pool Turnover	N	Part of the total turnover that is for Dark Pool trades
MDF_F_NUMTRADES	Number of Trades	N	
MDF_F_OPENPRICE	Open Price	N	Today's open price
MDF_F_BIDYIELD	Bid Yield	N	Best Bid Yield
MDF_F_ASKYIELD	Ask Yield	N	Best Ask Yield
MDF_F_LASTYIELD	Last Yield	N	
MDF_F_OPENYIELD	Open Yield	N	
MDF_F_DAYHIGHYIELD	Day High Yield	N	
MDF_F_DAYLOWYIELD	Day Low Yield	N	
MDF_F_NAV	NAV	N	
MDF_F_TIS	TIS	N	
MDF_F_UNCHANGEDPAID	Unchanged Paid	N	Sent for market places and lists
MDF_F_MINUSPAID	Minus Paid	N	Sent for market places and lists
MDF_F_PLUSPAID	Plus Paid	N	Sent for market places and lists
MDF_F_DURATION	Duration	N	
MDF_F_TIME	Time	N	Sent if the quote is for another time than 'now'

MDF_F_DATE	Date	N	Sent if the quote is for another date than 'today'
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The Time and Date fields are sent on all image replies and on stream replies if the quote is for another time/date than now (I.e if the client is subscribing to delayed data).

Quote Best Bid and Offer			
<i>mref</i>	MDF_M_QUOTEBO #43		
<i>mclass</i>	MDF_MC_QUOTEBO		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_BIDPRICE	Bid Price	N	Best Bid Price
MDF_F_ASKPRICE	Ask Price	N	Best Ask Price
MDF_F_BIDYIELD	Bid Yield	N	Best Bid Yield
MDF_F_ASKYIELD	Ask Yield	N	Best Ask Yield
MDF_F_BIDQUANTITY	Bid Quantity	N	Quantity at Best Bid
MDF_F_ASKQUANTITY	Ask Quantity	N	Quantity at Best Ask
MDF_F_TIME	Time	N	Sent if the quote is for another time than 'now'
MDF_F_DATE	Date	N	Sent if the quote is for another date than 'today'

The Time and Date fields are sent on all image replies and on stream replies if the quote is for another time/date than now (I.e if the client is subscribing to delayed data).

Instrument Reset			
<i>mref</i>	MDF_M_INSTRUMENTRESET #13		
<i>mclass</i>	MDF_MC_QUOTE MDF_MC_QUOTEBO MDF_MC_ORDER MDF_MC_MBO MDF_MC_NETORDERIMBALANCE MDF_MC_GREEKS		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>

The Instrument Reset message indicates that the client should reset all quote, netorderimbalance, greeks and order book data. All quote and netorderimbalance fields should be set to null, and the order book should be removed in full. Since the server will not include fields with a null value in the response to a request, clients are free to implement the reset procedure to their choosing, for example not setting Last Price to null could be a need for some clients.

Trade State			
<i>mref</i>	MDF_M_TRADESTATE #24		
<i>mclass</i>	MDF_MC_TRADESTATE		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_TRADESTATE	Trade State	Y	
MDF_F_TIME	Time	N	
MDF_F_DATE	Date	N	

The Trade State message is sent whenever there is a change in the trade state for a tradable instrument and/or market place / list. Examples of use can be to know whether a specific market is open or closed.

The Time and Date fields are sent on all image replies and on stream replies if the trade state is for another time/date than now (I.e if the client is subscribing to delayed data).

Net Order Imbalance Indicator			
<i>mref</i>	MDF_M_NETORDERIMBALANCE #30		
<i>mclass</i>	MDF_MC_NETORDERIMBALANCE		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_BIDPRICE	Best Bid Price	N	
MDF_F_ASKPRICE	Best Ask Price	N	
MDF_F_BIDQUANTITY	Volume of Best Bid	N	
MDF_F_ASKQUANTITY	Volume of Best Ask	N	
MDF_F_LASTPRICE	Equilibrium Price	N	
MDF_F_QUANTITY	Paired Shares	N	
MDF_F_IMBALANCE	Imbalance Shares	N	
MDF_F_IMBALANCEDIRECTION	Imbalance Direction	N	
MDF_F_CROSSTYPE	Cross Type	N	
MDF_F_TIME	Time	N	
MDF_F_DATE	Date	N	

The Net Order Imbalance Indicator (NOII) message is sent whenever there is a change in the NOII for a tradable instrument. The Time and Date fields are sent on all image replies and on stream replies if the NOII is for another time/date than now (I.e if the client is subscribing to delayed data).

Trade Messages

Trade			
<i>mref</i>	MDF_M_TRADE #6		
<i>mclass</i>	MDF_MC_TRADE		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_TRADEPRICE	Trade Price	N	
MDF_F_TRADEYIELD	Trade Yield	N	
MDF_F_TRADEQUANTITY	Trade Quantity	N	
MDF_F_TRADEREFERENCE	Trade Reference	Y	
MDF_F_TRADECODE	Trade Code	Y	
MDF_F_MMT	MMT	N	
MDF_F_TRADETIME	Trade Time	N	
MDF_F_EXECUTEDSIDE	Executed Side	N	
MDF_F_TRADETYPE	Trade Type	N	
MDF_F_TRADEBUYER	Trade Buyer	N	
MDF_F_TRADESELLER	Trade Seller	N	
MDF_F_TRADECANCELTIME	Trade Cancel Time	N	
MDF_F_TRADEAGREEMENTTIME	Off-Book Trade Agreement Time	N	Only for Off-Book trades
MDF_F_TRADEAGREEMENTDATE	Off-Book Trade Agreement Date	N	Only for Off-Book trades
MDF_F_MIC	Off-Book Trade Execution Venue	N	Only for Off-Book trades
MDF_F_TRADECURRENCY	Off-Book Trade Currency	N	Only for Off-Book trades and if the execution currency differs from that of the normal trade currency of the instrument.
MDF_F_ORDERID	Order ID	N	Set to the Millistream Order ID of the matched order

Each new trade message creates a new record. The exception to this is when Trade Code has either the **MDF_TC_CORRECTION** or **MDF_TC_CANCEL** flags set. In this case the intent is to modify a previously sent trade.

Corrections will carry only the required fields and the fields to modify, this happens normally for exchanges where a single trade is distributed in two parts (I.e for an iceberg order where the first part is the public volume and the second part is the hidden volume), in these cases the second trade will contain the new correct Trade Quantity.

Trade Cancellations will only carry the required fields and the Trade Cancel Time indicating the time when the trade was canceled, it is up to the client whether to delete the original trade or mark it as canceled.

Basic Data Messages

Basic Data			
<i>mref</i>	MDF_M_BASICDATA #15		
<i>mclass</i>	MDF_MC_BASICDATA		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_SYMBOL	Symbol	N	
MDF_F_NAME	Name	N	
MDF_F_ISIN	ISIN	N	
MDF_F_BOARDLOT	Board Lot	N	
MDF_F_INSTRUMENTTYPE	Instrument Type	N	
MDF_F_INSTRUMENTSUBTYPE	Instrument Sub Type	N	
MDF_F_DERIVATIVEINDICATOR	Derivative Indicator	N	
MDF_F_EXERCISETYPE	Exercise Type	N	
MDF_F_ISSUECURRENCY	Issue Currency	N	
MDF_F_TRADECURRENCY	Trade Currency	N	
MDF_F_BASECURRENCY	Base Currency	N	
MDF_F_QUOTECURRENCY	Quote Currency	N	
MDF_F_ISSUEDATE	Issue Date	N	
MDF_F_ISSUEPRICE	Issue Price	N	
MDF_F_STRIKEDATE	Strike Date	N	
MDF_F_STRIKEPRICE	Strike Price	N	
MDF_F_MARKETPLACE	Market Place	N	
MDF_F_PRIMARYMARKETPLACE	Primary Market Place	N	
MDF_F_SUBMARKET	Sub Market	N	
MDF_F_LIST	List	N	
MDF_F_COMPANY	Company	N	
MDF_F_FUNDPPMCODE	Fund PPM Code	N	
MDF_F_UNDERLYINGID	Underlying Id	N	
MDF_F_FUNDCOMPANY	Fund Company	N	
MDF_F_FUNDPMICODE	Fund PMI Code	N	
MDF_F_COUNTRY	Country	N	
MDF_F_S1	Comment	N	
MDF_F_NUMBEROFSHARES	Number of Shares	N	
MDF_F_NOMINALVALUE	Nominal Value	N	
MDF_F_MIC	MIC	N	
MDF_F_OPERATINGMIC	Operating MIC	N	

MDF_F_CHAIRMAN	Chairman	N	
MDF_F_CEO	Chief Executive Officer	N	
MDF_F_WEBSITE	Website	N	
MDF_F_ORGNUM	Organisationsnummer	N	Swedish Business ID
MDF_F_ORGNUMNO	Organisasjonsnummer	N	Norwegian Business ID
MDF_F_CVR	CVR	N	Danish Business ID
MDF_F_YTUNNUS	Y-Tunnus/FO-Nummer	N	Finnish Business ID
MDF_F_KENNITALA	Kennitala	N	Icelandic Business ID
MDF_F_SHORTDESCRIPTION	Short Description	N	
MDF_F_DESCRIPTION	Long Description	N	
MDF_F_SECTOR	Classification Sector	N	
MDF_F_GENDERCEO	The gender of the CEO	N	
MDF_F_GENDERCHAIRMAN	The gender of the Chairman	N	
MDF_F_BIRTHYEARCEO	The birth year of the CEO	N	
MDF_F_BIRTYEARCHAIRMAN	The birt year of the Chairman	N	
MDF_F_ADDRESS	Company HQ Address	N	
MDF_F_POSTALCODE	Company HQ Postal Code	N	
MDF_F_CITY	Company HQ City	N	
MDF_F_TELEPHONE	Company Telephone Number	N	
MDF_F_FAX	Company Fax Number	N	
MDF_F_EMAIL	Company E-Mail	N	
MDF_F_IMPORTANTEVENTS	Important Events	N	
MDF_F_CONTRACTSIZE	Contract Size	N	
MDF_F_CONTRACTVALUE	Contract Value	N	
MDF_F_BASERATIO	Base Currency Ratio	N	
MDF_F_SOURCEID	Source Id	N	
MDF_F_ISSUER	Issuer	N	
MDF_F_ISSUENAME	Issuer Name	N	
MDF_F_ONGOINGCHARGE	Ongoing Charge	N	
MDF_F_FUNDYEARLYMGMTFEE	Fund Yearly Management Fee	N	
MDF_F_FUNDPPMFEE	Fund PPM Fee	N	
MDF_F_FUNDPPMTYPE	Fund PPM Type	N	
MDF_F_FUNDBENCHMARK	Fund Benchmark	N	
MDF_F_FUNDBENCHMARKINSREF	Fund Benchmark Insref	N	

MDF_F_FUNDLVERAGE	Fund Leverage	N	
MDF_F_FUNDDIRECTION	Fund Direction	N	
MDF_F_FUNDRISK	Fund Risk	N	
MDF_F_PROSPECTUS	URL of Prospectus	N	
MDF_F_GEOFOCUSREGION	Geofocus Region	N	
MDF_F_GEOFOCUSCOUNTRY	Geofocus Country	N	
MDF_F_OPENINTEREST	Open Interest	N	
MDF_F_CUSIP	CUSIP	N	
MDF_F_WKN	WKN	N	
MDF_F_UCITS	UCITS	N	
MDF_F_INCEPTIONDATE	Fund Inception Date	N	
MDF_F_INSTRUMENTCLASS	Instrument Class	N	
MDF_F_INSTRUMENTSUBCLASS	Instrument Sub Class	N	
MDF_F_INSTRUMENTSUBSUBCLASS	Instrument SubSub Class	N	
MDF_F_CONSTITUENTS	Fund/Index Constituents	N	Pipe separated list of the constituents
MDF_F_COUPONRATE	Coupon Rate	N	
MDF_F_COUPONDATE	Coupon Date	N	
MDF_F_COUPONFREQUENCY	Coupon Frequency	N	
MDF_F_BARRIERPRICE	Barrier Price	N	
MDF_F_MORNINGSTARRATING	Morningstar Rating	N	
MDF_F_SALESFEE	Sales Fee	N	
MDF_F_PURCHASEFEE	Purchase Fee	N	
MDF_F_MINSTARTAMOUNT	Min Start Amount	N	
MDF_F_MINSUBSCRIPTIONAMOUNT	Min Subscription Amount	N	
MDF_F_PERFORMANCEFEE	Performance Fee	N	
MDF_F_MINADDITIONALAMOUNT	Min Additional Amount	N	
MDF_F_CEOADMISSIONDATE	CEO Admission Date	N	
MDF_F_CHAIRMANADMISSIONDATE	Chairman Admission Date	N	
MDF_F_TRADEDTHROUGHDATE	Traded Through Date	N	
MDF_F_TOTALFEE	Total Fee	N	
MDF_F_DIVIDENDTYPE	Dividend Type	N	
MDF_F_DIVIDENDFREQUENCY	Dividend Frequency	N	
MDF_F_PRICINGFREQUENCY	Pricing Frequency	N	
MDF_F_EUSIPA	EUSIPA Code	N	
MDF_F_CONVERTFROMDATE	Convert From Date	N	
MDF_F_CONVERTTODATE	Convert To Date	N	

MDF_F_CONVERSIONPRICE	Conversion Price	N	
MDF_F_SETTLEMENTTYPE	Settlement Type	N	
MDF_F_CAP	Cap Level	N	
MDF_F_TICKTABLE	Tick Size Table	N	
MDF_F_TICKSIZES	Tick Sizes Array	N	
MDF_F_PRICETYPE	Price Type	N	
MDF_F_VOLUMEDIMENSION	Volume Dimension	N	
MDF_F_ASIAANTAILSTART	Asian Tail Start	N	
MDF_F_ASIAANTAILEND	Asian Tail End	N	
MDF_F_LOGOTYPE	Company Logotype	N	
MDF_F_FINANCINGLEVEL	Financing Level	N	
MDF_F_PARTICIPATIONRATE	Participation Rate	N	
MDF_F_KIID	URL of the Key Investor Information Document	N	
MDF_F_CFI	CFI Code	N	
MDF_F_BROKERS	Broker codes	N	
MDF_F_MAXLEVEL	Max Level	N	
MDF_F_OUTSTANDINGAMOUNT	Outstanding Amount	N	
MDF_F_INTERESTRATE	Interest Rate	N	
MDF_F_MARKETMAKER	Market Maker	N	
MDF_F_MARKETOPENDAYS	Market Open Days	N	
MDF_F_MARKETOPEN	Market Open Time	N	
MDF_F_MARKETCLOSE	Market Closing Time	N	
MDF_F_MARKETEARLYCLOSE	Market Early Closing Time	N	
MDF_F_SPECIALCONDITION	Special Condition	N	
MDF_F_LEGALSTRUCTURE	Legal Structure	N	
MDF_F_PRODUCTCODE	Derivative Product Code	N	
MDF_F_QUOTINGTYPE	Quoting Type	N	
MDF_F_CIK	Central Index Key	N	
MDF_F_CSR	Corporate Sustainability Rating	N	
MDF_F_ACTIVESHARE	Active Share	N	
MDF_F_TRACKINGERROR	Tracking Error	N	
MDF_F_FIGI	FIGI	N	
MDF_F_FIGICOMPOSITE	Composite FIGI	N	
MDF_F_FIGISHARECLASS	Share Class FIGI	N	
MDF_F_FIGISECURITYTYPE	FIGI Security Type	N	
MDF_F_DAYCOUNTCONVENTION	Day Count Convention	N	

MDF_F_EXPIRATIONTYPE	Expiration Type	
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The Basic Data message defines the instrument, and is a required message for all instruments in the Millistream universe.

Localization			
<i>mref</i>	MDF_M_L10N #32		
<i>mclass</i>	MDF_MC_L10N		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_DELETERECOND	Delete Record	N	The presence of this field indicates that an existing Localization entry with the same Language as this message should be deleted.
MDF_F_LANGUAGE	Language	Y	04010_Reference_Language for PRIIP
MDF_F_NAME	Name	N	
MDF_F_SHORTDESCRIPTION	Short Description	N	
MDF_F_DESCRIPTION	Long Description	N	
MDF_F_IMPORTANTEVENTS	Important Events	N	
MDF_F_PROSPECTUS	URL of Prospectus	N	
MDF_F_KIID	URL of the Key Investor Information Document	N	05090_UCITS_KID_Web_Address for PRIIP
MDF_F_PRIIP04020	04020_Comprehension_Alert_Portfolio	N	
MDF_F_PRIIP04030	04030_Intended_target_market_retail_investor_Portfolio	N	
MDF_F_PRIIP04040	04040_Investment_objective_Portfolio	N	
MDF_F_PRIIP04050	04050_Risk_narrative_Portfolio	N	
MDF_F_PRIIP04060	04060_Other_materially_relevant_risk_narrative_Portfolio	N	
MDF_F_PRIIP04070	04070_Type_of_underlying_Investment_Option	N	
MDF_F_PRIIP04080	04080_Capital_Guarantee	N	
MDF_F_PRIIP04081	04081_Capital_Guarantee_Level	N	
MDF_F_PRIIP04082	04082_Capital_Guarantee_Limitations	N	
MDF_F_PRIIP04083	04083_Capital_Guarantee_Early_Exit_Conditions	N	
MDF_F_PRIIP04084	04084_Capital_guarantee_Portfolio	N	

MDF_F_PRIIP04085	04085_Possible_maximu m_loss_Portfolio	N	
MDF_F_PRIIP04090	04090_Portfolio_Perfor mance_Fees_Narrative	N	
MDF_F_PRIIP04100	04100_Portolio_Carried_ Interest_Narrative	N	
MDF_F_PRIIP04110	04110_Other_comment	N	

The Localization message provides language dependent overrides to some of the fields in the Basic Data and PRIIP messages. Currently, image requests for Localization messages will be treated like stream requests.

Mappings			
<i>mref</i>	MDF_M_MAPPINGS #38		
<i>mclass</i>	MDF_MC_MAPPINGS		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_MARKETPLACE	Marketplace	N	
MDF_F_SECTORMEMBERS	Sector Members	N	

The Mappings message provides mappings between different instruments. Currently, image requests for Mappings messages will be treated like stream requests.

PRIIP/MiFID Messages

PRIIP EPT		
<i>mref</i>	MDF_M_PRIIP #35	
<i>mclass</i>	MDF_MC_PRIIP	
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>
MDF_F_FISN	Financial Instrument Short Name	N
MDF_F_LEI	Legal Entity Identifier	N
MDF_F_PRIIP00010	00010_Portfolio_Issuer_Name	N
MDF_F_PRIIP00020	00020_Portfolio_Guarantor_Name	N
MDF_F_PRIIP00030	00030_Portfolio_Identifying_Data	N
MDF_F_PRIIP00040	00040_Type_Of_Identification_Code_For_The_Fund_Share_Or_Portfolio	N
MDF_F_PRIIP00050	00050_Portfolio_Name	N
MDF_F_PRIIP00060	00060_Share_Class_Currency	N
MDF_F_DATE	00070_Reference_Date	N
MDF_F_PRIIP00080	00080_Portfolio_PRIIPS_Category	N
MDF_F_PRIIP00090	00090_Fund_CIC_code	N
MDF_F_PRIIP00100	00100_EOS_portfolio	N
MDF_F_PRIIP01010	01010_Valuation_Frequency	N
MDF_F_PRIIP01020	01020_Portfolio_VEV_Reference	N
MDF_F_PRIIP01030	01030_IS_Flexible	N
MDF_F_PRIIP01040	01040_Flex_VEV_Historical	N
MDF_F_PRIIP01050	01050_Flex_VEV_Ref_Asset_Allocation	N
MDF_F_PRIIP01060	01060_IS_Risk_Limit_Relevant	N
MDF_F_PRIIP01070	01070_Flex_VEV_Risk_Limit	N
MDF_F_PRIIP01080	01080_Existing_Credit_Risk	N
MDF_F_PRIIP01090	01090_SRI	N
MDF_F_PRIIP01100	01100_MRM	N
MDF_F_PRIIP01110	01110_CRM	N
MDF_F_PRIIP01120	01120_Recommended_Holding_Period	N
MDF_F_STRIKEDATE	01130_Maturity_Date	N
MDF_F_PRIIP01140	01140_Liquidity_Risk	N
MDF_F_PRIIP02010	02010_Portfolio_return_unfavorable_scenario_1_year	N
MDF_F_PRIIP02020	02020_Portfolio_return_unfavorable_scenario_half_RHP	N
MDF_F_PRIIP02030	02030_Portfolio_return_unfavorable_scenario_RHP	N
MDF_F_PRIIP02040	02040_Portfolio_return_moderate_scenario_1_year	N
MDF_F_PRIIP02050	02050_Portfolio_return_moderate_scenario_half_RHP	N

MDF_F_PRIIP02060	02060_Portfolio_return_moderate_scenario_RHP	N
MDF_F_PRIIP02070	02070_Portfolio_return_favorable_scenario_1_year	N
MDF_F_PRIIP02080	02080_Portfolio_return_favorable_scenario_half_RHP	N
MDF_F_PRIIP02090	02090_Portfolio_return_favorable_scenario_RHP	N
MDF_F_PRIIP02100	02100_Portfolio_return_stress_scenario_1_year	N
MDF_F_PRIIP02110	02110_Portfolio_return_stress_scenario_half_RHP	N
MDF_F_PRIIP02120	02120_Portfolio_return_stress_scenario_RHP	N
MDF_F_PRIIP02130	02130_Portfolio_number_of_observed_return_M0	N
MDF_F_PRIIP02140	02140_Portfolio_mean_observed_returns_M1	N
MDF_F_PRIIP02150	02150_Portfolio_observed_Sigma	N
MDF_F_PRIIP02160	02160_Portfolio_observed_Skewness	N
MDF_F_PRIIP02170	02170_Portfolio_observed_Excess_Kurtosis	N
MDF_F_PRIIP02180	02180_Portfolio_observed_Stressed_Volatility	N
MDF_F_PRIIP03010	03010_One_off_cost_Portfolio_entry_cost	N
MDF_F_PRIIP03015	03015_One_off_cost_Portfolio_entry_cost_Acquired	N
MDF_F_PRIIP03020	03020_One_off_costs_Portfolio_exit_cost_at_RHP	N
MDF_F_PRIIP03030	03030_One_off_costs_Portfolio_exit_cost_at_1_year	N
MDF_F_PRIIP03040	03040_One_off_costs_Portfolio_exit_cost_at_half_RHP	N
MDF_F_PRIIP03050	03050_One_off_costs_Portfolio_sliding_exit_cost_Indicator	N
MDF_F_PRIIP03060	03060_Ongoing_costs_Portfolio_other_costs	N
MDF_F_PRIIP03070	03070_Ongoing_costs_Portfolio_management_costs	N
MDF_F_PRIIP03080	03080_Ongoing_costs_Portfolio_transaction_costs	N
MDF_F_PRIIP03090	03090_Existing_performance_fees	N
MDF_F_PRIIP03095	03095_Incidental_costs_Portfolio_performance_fees	N
MDF_F_PRIIP03100	03100_Existing_carried_interest_fees	N
MDF_F_PRIIP03105	03105_Incidental_costs_Portfolio_carried_interest	N
MDF_F_LANGUAGE	04010_Reference_Language	N
MDF_F_PRIIP04020	04020_Comprehension_Alert_Portfolio	N
MDF_F_PRIIP04030	04030_Intended_target_market_retail_investor_Portfolio	N
MDF_F_PRIIP04040	04040_Investment_objective_Portfolio	N
MDF_F_PRIIP04050	04050_Risk_narrative_Portfolio	N
MDF_F_PRIIP04060	04060_Other_materially_relevant_risk_narrative_Portfolio	N
MDF_F_PRIIP04070	04070_Type_of_underlying_Investment_Option	N
MDF_F_PRIIP04080	04080_Capital_Guarantee	N
MDF_F_PRIIP04081	04081_Capital_Guarantee_Level	N
MDF_F_PRIIP04082	04082_Capital_Guarantee_Limitations	N
MDF_F_PRIIP04083	04083_Capital_Guarantee_Early_Exit_Conditions	N
MDF_F_PRIIP04084	04084_Capital_guarantee_Portfolio	N

MDF_F_PRIIP04085	04085_Possible_maximum_loss_Portfolio	N
MDF_F_PRIIP04090	04090_Portfolio_Performance_Fees_Narrative	N
MDF_F_PRIIP04100	04100_Portfolio_Carried_Interest_Narrative	N
MDF_F_PRIIP04110	04110_Other_comment	N
MDF_F_PRIIP05010	05010_PRIIP_data_delivery	N
MDF_F_PRIIP05020	05020_UCITS_data_delivery	N
MDF_F_PRIIP05030	05030_Portfolio_UCITS_SRRI	N
MDF_F_PRIIP05040	05040_Portfolio_UCITS_Vol	N
MDF_F_PRIIP05050	05050_Ongoing_costs_Portfolio_other_costs_UCITS	N
MDF_F_PRIIP05060	05060_Ongoing_costs_Portfolio_transaction_costs	N
MDF_F_PRIIP05065	05065_Transactions_costs_methodology	N
MDF_F_PRIIP05070	05070_Incidental_costs_Portfolio_performance_fees_UCITS	N
MDF_F_PRIIP05080	05080_Incidental_costs_Portfolio_carried_interest_UCITS	N
MDF_F_KIID	05090_UCITS_KID_Web_Address	N
MDF_F_PRIIP06010	06010_Bonds_Weight	N
MDF_F_PRIIP06020	06020_Annualized_Return_Volatility	N
MDF_F_PRIIP06030	06030_Duration_Bonds	N
MDF_F_PRIIP06040	06040_Existing_Capital_Preservation	N
MDF_F_PRIIP06050	06050_Capital_Preservation_Level	N
MDF_F_PRIIP06060	06060_Time_Interval_Maximum_Loss	N
MDF_F_PRIIP06070	06070_Uses_PI	N
MDF_F_PRIIP06080	06080_Multiplier_PI	N
MDF_F_PRIIP07010	07010_Total_cost_1_year	N
MDF_F_PRIIP07020	07020_RIY_1_year	N
MDF_F_PRIIP07030	07030_Total_cost_half_RHP	N
MDF_F_PRIIP07040	07040_RIY_half_RHP	N
MDF_F_PRIIP07050	07050_Total_cost_RHP	N
MDF_F_PRIIP07060	07060_RIY_RHP	N
MDF_F_PRIIP07070	07070_One_off_costs_Portfolio_entry_cost_RIY	N
MDF_F_PRIIP07080	07080_One_off_costs_Portfolio_exit_cost_RIY	N
MDF_F_PRIIP07090	07090_Ongoing_costs_Portfolio_transaction_costs_RIY	N
MDF_F_PRIIP07100	07100_Ongoing_costs_Other_ongoing_costs_RIY	N
MDF_F_PRIIP07110	07110_Incidental_costs_Portfolio_performance_fees_RIY	N
MDF_F_PRIIP07120	07120_Incidental_costs_Portfolio_carried_interests_RIY	N

MiFID EMT

<i>mref</i>	MDF_M_MIFID #36	
<i>mclass</i>	MDF_MC_MIFID	
<i>Tag</i>	<i>Name EMTv1</i>	<i>Name EMTv3</i>
MDF_F_MIFID00001		00001_EMT_Version
MDF_F_MIFID00002		00002_EMT_Producer_Name
MDF_F_MIFID00003		00003_EMT_Producer_LEI
MDF_F_MIFID00004		00004_EMT_Producer_Email
MDF_F_MIFID00005		00005_File_Generation_Date_and_Time
MDF_F_MIFID00006		00006_EMT_Data_Reporting_Target_Market
MDF_F_MIFID00007		00007_EMT_Data_Reporting_ExAnte
MDF_F_MIFID00008		00008_EMT_Data_Reporting_ExPost
MDF_F_MIFID00010	00010_Financial_Instrument_Identifying_Data	00010_Financial_Instrument_Identifying_Data
MDF_F_MIFID00020	00020_Type_Of_Identification_Code_For_The_Financial_Instrument	00020_Type_Of_Identification_Code_For_The_Financial_Instrument
MDF_F_MIFID00030	00030_Financial_Instrument_Name	00030_Financial_Instrument_Name
MDF_F_MIFID00040	00040_Financial_Instrument_Currency	00040_Financial_Instrument_Currency
MDF_F_MIFID00045		00045_Financial_Instrument_Performance_Fee
MDF_F_MIFID00047		00047_Financial_Instrument_Distribution_Of_Cash
MDF_F_DATE	00050_Reporting_Date	00050_General_Reference_Date
MDF_F_MIFID00060	00060_Financial_Instrument_Legal_Structure	00060_Financial_Instrument_Product_Type
MDF_F_STRIKEDATE		00065_Maturity_Date
MDF_F_MIFID00070	00070_Financial_Instrument_Issuer_Name	00070_Financial_Instrument_Manufacturer_Name
MDF_F_MIFID00073		00073_Financial_Instrument_Manufacturer_LEI
MDF_F_MIFID00074		00074_Financial_Instrument_Manufacturer_Email
MDF_F_MIFID00075		00075_Financial_Instrument_Manufacturer_Product_Governance_Process
MDF_F_MIFID00080	00080_Financial_Instrument_Guarantor_Name	00080_Financial_Instrument_Guarantor_Name
MDF_F_MIFID00085		00085_Financial_Instrument_Type_Notional_or_Item_Based
MDF_F_MIFID00090	00090_Product_Category_or_Nature	00090_Product_Category_or_Nature_Germany
MDF_F_MIFID00095		00095_Structured_Securities_Product_Category_or_Nature
MDF_F_MIFID00100	00100_Leveraged_Financial_Instrument_or	00100_Leveraged_Financial_Instrument_or

	_Contingent_Liability_Instrument	_Contingent_Liability_Instrument
MDF_F_MIFID00110		00110_Fund_Share_Class_Without_Retrocession
MDF_F_MIFID00120		00120_Ex_Post_Cost_Calculation_Basis_Italy
MDF_F_MIFID01000		01000_Target_Market_Reference_Date
MDF_F_MIFID01010	01010_Investor_Type_Retail	01010_Investor_Type_Retail
MDF_F_MIFID01020	01020_Investor_Type_Professional	01020_Investor_Type_Professional
MDF_F_MIFID01030	01030_Investor_Type_Eligible_Counterparty	01030_Investor_Type_Eligible_Counterparty
MDF_F_MIFID02010	02010_Basic_Investor	02010_Basic_Investor
MDF_F_MIFID02020	02020_Informed_Investor	02020_Informed_Investor
MDF_F_MIFID02030	02030_Advanced_Investor	02030_Advanced_Investor
MDF_F_MIFID02040	02040_Expert_Investor_Germany	02040_Expert_Investor_Germany
MDF_F_MIFID03010	03010_No_Capital_Loss	03010_Compatible_With_Clients_Who_Can_Not_Bear_Capital_Loss
MDF_F_MIFID03020	03020_Limited_Capital_Loss	03020_Compatible_With_Clients_Who_Can_Bear_Limited_Capital_Loss
MDF_F_MIFID03030	03030_Limited_Capital_Loss_Level	03030_Limited_Capital_Loss_Level
MDF_F_MIFID03040	03040_No_Capital_Guarantee	03040_Compatible_With_Clients_Who_Do_Not_Need_Capital_Guarantee
MDF_F_MIFID03050	03050_Loss_Beyond_Capital	03050_Compatible_With_Clients_Who_Can_Bear_Loss_Beyond_Capital
MDF_F_MIFID04010	04010_Risk_Tolerance_PRIIPS_Methodology	04010_Risk_Tolerance_PRIIPS_Methodology
MDF_F_MIFID04020	04020_Risk_Tolerance_UCITS_Methodology	04020_Risk_Tolerance_UCITS_Methodology
MDF_F_MIFID04030	04030_Risk_Tolerance_Internal_Methodology_For_Non_PRIIPS_and_Non_UCITS	04030_Risk_Tolerance_Internal_Methodology_For_Non_PRIIPS_and_Non_UCITS
MDF_F_MIFID04040	04040_Risk_Tolerance_For_Non_PRIIPS_and_Non_UCITS_Spain	04040_Risk_Tolerance_For_Non_PRIIPS_and_Non_UCITS_Spain
MDF_F_MIFID04050	04050_Not_For_Investors_With_The_Lowest_Risk_Tolerance_Germany	04050_Not_For_Investors_With_The_Lowest_Risk_Tolerance_Germany
MDF_F_MIFID05010	05010_Return_Profile_Preservation	05010_Return_Profile_Client_looking_for_Preservation
MDF_F_MIFID05020	05020_Return_Profile_Growth	05020_Return_Profile_Client_looking_for_Capitalized_Growth
MDF_F_MIFID05030	05030_Return_Profile_Income	05030_Return_Profile_Client_looking_for_Income
MDF_F_MIFID05040	05040_Return_Profile_Hedging	05040_Return_Profile_Hedging
MDF_F_MIFID05050	05050_Option_or_Leveraged_Return_Profile	05050_Option_or_Leveraged_Return_Profile
MDF_F_MIFID05060	05060_Return_Profile_Other	

MDF_F_MIFID05070	05070_Return_Profile_Pension_Scheme_Germany	05070_Return_Profile_Pension_Scheme_Germany
MDF_F_MIFID05080	05080_Time_Horizon (enums)	05080_Minimum_Recommended_Holding_Period
MDF_F_MIFID05080N	05080_Time_Horizon (in years)	05080_Minimum_Recommended_Holding_Period
MDF_F_STRIKEDATE	05090_Maturity_Date	00065_Maturity_Date
MDF_F_MIFID05100	05100_May_Be_Terminated_Early	00067_May_Be_Terminated_Early
MDF_F_MIFID05105		05105_Intended_Compatible_With_Clients_Having_ESG_Preferences
MDF_F_MIFID05110	05110_Specific_Investment_Need	
MDF_F_MIFID05115		05115_Other_Specific_Investment_Need
MDF_F_MIFID06010	06010_Execution_Only	06010_Execution_Only
MDF_F_MIFID06020	06020_Execution_With_Appropriateness_Test_Or_Non_Advised_Services	06020_Execution_With_Appropriateness_Test_Or_Non_Advised_Services
MDF_F_MIFID06030	06030_Investment_Advice	06030_Investment_Advice
MDF_F_MIFID06040	06040_Portfolio_Management	06040_Portfolio_Management
MDF_F_MIFID07010	07010_Structured_Securities_Quotation	00096_Structured_Securities_Quotation
MDF_F_MIFID07020	07020_One-off_cost_Financial_Instrument_entry_cost	07020_Gross_One-off_cost_Financial_Instrument_maximum_entry_cost_non_acquired
MDF_F_MIFID07025		07025_Net_One-off_cost_Financial_Instrument_entry_cost_non_acquired
MDF_F_MIFID07030	07030_One-off_cost_Financial_Instrument_maximum_entry_cost_fixed_amount_Italy	07030_One-off_cost_Financial_Instrument_maximum_entry_cost_fixed_amount_Italy
MDF_F_MIFID07040	07040_One-off_cost_Financial_Instrument_maximum_entry_cost_acquired	07040_One-off_cost_Financial_Instrument_maximum_entry_cost_acquired
MDF_F_MIFID07050	07050_One-off_costs_Financial_Instrument_maximum_exit_cost	07050_One-off_costs_Financial_Instrument_maximum_exit_cost_non_acquired
MDF_F_MIFID07060	07060_One-off_costs_Financial_Instrument_maximum_exit_cost_fixed_amount_Italy	07060_One-off_costs_Financial_Instrument_maximum_exit_cost_fixed_amount_Italy
MDF_F_MIFID07070	07070_One-off_costs_Financial_Instrument_maximum_exit_cost_acquired	07070_One-off_costs_Financial_Instrument_maximum_exit_cost_acquired
MDF_F_MIFID07080	07080_One-off_costs_Financial_Instrument_Typical_exit_cost	07080_One-off_costs_Financial_Instrument_Typical_exit_cost
MDF_F_MIFID07090	07090_One-off_cost_Financial_Instrument_exit_cost_structured_securities_prior_RHP	07090_One-off Cost Financial Instrument Exit Cost Structured_Products_Prior_RHP
MDF_F_MIFID07100	07100_Financial_Instrument_Ongoing_cost	07100_Financial_Instrument_Gross_Ongoing

	s	g_costs
MDF_F_MIFID07105		07105_Financial_Instrument_Gearing_costs_ex_ante_UK
MDF_F_MIFID07110	07110_Financial_Instrument_Management_fee	07110_Financial_Instrument_Management_fee
MDF_F_MIFID07120	07120_Financial_Instrument_Distribution_fee	07120_Financial_Instrument_Distribution_fee
MDF_F_MIFID07130	07130_Financial_Instrument_Transaction_costs_ex_ante	07130_Financial_Instrument_Transaction_costs_ex_ante
MDF_F_MIFID07140	07140_Financial_Instrument_Incidental_costs_ex_ante	07140_Financial_Instrument_Incidental_costs_ex_ante
MDF_F_MIFID07150		07150_Structured_Securities_Reference_Price_ex_ante
MDF_F_MIFID07155		07155_Structured_Securities_Notional_Reference_Amount_ex_ante
MDF_F_MIFID07160		07160_Ex_Ante_Costs_Reference_Date
MDF_F_MIFID08010	08010_One-off_cost_Structured_Securities_entry_cost_ex_post	08010_Gross_One-off_cost_Structured_Securities_entry_cost_ex_post
MDF_F_MIFID08015		08015_Net_One-off_cost_Structured_Securities_entry_cost_ex_post
MDF_F_MIFID08020	08020_One-off_costs_Structured_Securities_exit_cost_ex_post	08020_One-off_costs_Structured_Securities_exit_cost_ex_post
MDF_F_MIFID08025		08025_One-off_cost_Financial_Instrument_entry_cost_acquired
MDF_F_MIFID08030	08030_Financial_Instrument_Ongoing_costs_ex_post	08030_Financial_Instrument_Ongoing_costs_ex_post
MDF_F_MIFID08040	08040_Structured_Securities_Ongoing_costs_ex_post_accumulated	08040_Structured_Securities_Ongoing_costs_ex_post_accumulated
MDF_F_MIFID08045		08045_Financial_Instrument_Borrowing_Costs_Ex_Post_UK
MDF_F_MIFID08050	08050_Financial_Instrument_Management_fee_ex_post	08050_Financial_Instrument_Management_fee_ex_post
MDF_F_MIFID08060	08060_Financial_Instrument_Distribution_fee_ex_post	08060_Financial_Instrument_Distribution_fee_ex_post
MDF_F_MIFID08070	08070_Financial_Instrument_Transaction_costs_ex_post	08070_Financial_Instrument_Transaction_costs_ex_post
MDF_F_MIFID08080	08080_Financial_Instrument_Incidental_costs_ex_post	08080_Financial_Instrument_Incidental_costs_ex_post
MDF_F_MIFID08090	08090_Beginning_Of_Calculation_Period	08090_Beginning_Of_Reference_Period
MDF_F_MIFID08100	08100_End_Of_Calculation_Period	08100_End_Of_Reference_Period
MDF_F_MIFID08110		08110_Structured_Securities_Reference_Price_ex_post

MDF_F_MIFID08120	08120_Structured Securities_Notional_Reference_Amount
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MiFID EMT History		
<i>mref</i>	MDF_M_MIFIDHISTORY #37	
<i>mclass</i>	MDF_MC_MIFIDHISTORY	
<i>Tag</i>	<i>Name EMTv1</i>	<i>Name EMTv3</i>
MDF_F_DATE	Date when the Cost & Charges Ex-Post Section changed	Date when the Cost & Charges Ex-Post Section changed
MDF_F_MIFID08010	08010_One-off_cost_Structured_Securities_entry_cost_ex_post	08010_Gross_One-off_cost_Structured_Securities_entry_cost_ex_post
MDF_F_MIFID08015		08015_Net_One-off_cost_Structured_Securities_entry_cost_ex_post
MDF_F_MIFID08020	08020_One-off_costs_Structured_Securities_exit_cost_ex_post	08020_One-off_costs_Structured_Securities_exit_cost_ex_post
MDF_F_MIFID08025		08025_One-off_cost_Financial_Instrument_entry_cost_acquired
MDF_F_MIFID08030	08030_Financial_Instrument_Ongoing_costs_ex_post	08030_Financial_Instrument_Ongoing_costs_ex_post
MDF_F_MIFID08040	08040_Structured_Securities_Ongoing_costs_ex_post_accumulated	08040_Structured_Securities_Ongoing_costs_ex_post_accumulated
MDF_F_MIFID08045		08045_Financial_Instrument_Borrowing_Costs_Ex_Post_UK
MDF_F_MIFID08046		08046_Financial_Instrument_Gearing_costs_ex_post_UK
MDF_F_MIFID08050	08050_Financial_Instrument_Management_fee_ex_post	08050_Financial_Instrument_Management_fee_ex_post
MDF_F_MIFID08060	08060_Financial_Instrument_Distribution_fee_ex_post	08060_Financial_Instrument_Distribution_fee_ex_post
MDF_F_MIFID08070	08070_Financial_Instrument_Transaction_costs_ex_post	08070_Financial_Instrument_Transaction_costs_ex_post
MDF_F_MIFID08080	08080_Financial_Instrument_Incidental_costs_ex_post	08080_Financial_Instrument_Incidental_costs_ex_post
MDF_F_MIFID08085		08085_Financial_Instrument_Performance_Fee_costs_ex_post
MDF_F_MIFID08090	08090_Beginning_Of_Calculation_Period	08090_Beginning_Of_Reference_Period
MDF_F_MIFID08100	08100_End_Of_Calculation_Period	08100_End_Of_Reference_Period
MDF_F_MIFID08110		08110_Structured_Securities_Reference_Price_ex_post

MDF_F_MIFID08120		08120_Structured Securities_Notional_Reference_Amount
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History Messages

Price History			
<i>mref</i>	MDF_M_PRICEHISTORY #16		
<i>mclass</i>	MDF_MC_PRICEHISTORY		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_DELETERECORD	Delete Record	N	The presence of this field indicates that an existing Price History entry with the same Date as this message should be deleted.
MDF_F_DATE	Date	Y	
MDF_F_TIME	Time	Y	
MDF_F_CLOSEPRICETYPE	Close Price Type	N	
MDF_F_OPENPRICE	Open Price	N	
MDF_F_CLOSEPRICE	Close Price	N	
MDF_F_CLOSETRADEPRICE	Close Trade Price	N	
MDF_F_CLOSEBIDPRICE	Close Bid Price	N	
MDF_F_CLOSEASKPRICE	Close Ask Price	N	
MDF_F_CLOSEDAYHIGHPRICE	Close Day High Price	N	
MDF_F_CLOSEDAYLOWPRICE	Close Day Low Price	N	
MDF_F_CLOSEQUANTITY	Close Quantity	N	
MDF_F_CLOSEINTERNALQUANTITY	Close Internal Quantity	N	
MDF_F_CLOSEOFFBOOKQUANTITY	Close Off-Book Quantity	N	
MDF_F_CLOSEDARKQUANTITY	Close Dark Pool Quantity	N	
MDF_F_CLOSETURNOVER	Close Turnover	N	
MDF_F_CLOSEINTERNALTURNOVER	Close Internal Turnover	N	
MDF_F_CLOSEOFFBOOKTURNOVER	Close Off-Book Turnover	N	
MDF_F_CLOSEDARKTURNOVER	Close Dark Pool Turnover	N	
MDF_F_CLOSENUMTRADES	Close Number of Trades	N	
MDF_F_OPENYIELD	Open Yield	N	
MDF_F_CLOSEBIDYIELD	Close Bid Yield	N	
MDF_F_CLOSEASKYIELD	Close Ask Yield	N	
MDF_F_CLOSEYIELD	Close Yield	N	
MDF_F_CLOSEDAYHIGHYIELD	Close Day High Yield	N	
MDF_F_CLOSEDAYLOWYIELD	Close Day Low Yield	N	
MDF_F_CLOSENAV	Close NAV	N	
MDF_F_CLOSETIS	Close TIS	N	
MDF_F_CLOSEVWAP	Close VWAP	N	
MDF_F_SOURCE	Source	Y	

Currently responses to image requests will only send the latest Price History image. Even though the message contains the Open Price and Open Yield Price fields, the Price History message will only be sent when the market is closed.

Performance			
<i>mref</i>	MDF_M_PERFORMANCE #26		
<i>mclass</i>	MDF_MC_PERFORMANCE		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_DATE	Date	N	
MDF_F_TIME	Time	N	
MDF_F_CLOSEBIDPRICE1D	Close Bid Price 1 Day	N	
MDF_F_CLOSEBIDPRICE1W	Close Bid Price 1 Week	N	
MDF_F_CLOSEPRICE1D	Close Price 1 Day	N	
MDF_F_CLOSEPRICE1W	Close Price 1 Week	N	
MDF_F_CLOSEPRICE2W	Close Price 2 Weeks	N	
MDF_F_CLOSEPRICE1M	Close Price 1 Month	N	
MDF_F_CLOSEPRICE3M	Close Price 3 Months	N	
MDF_F_CLOSEPRICE6M	Close Price 6 Months	N	
MDF_F_CLOSEPRICE9M	Close Price 9 Months	N	
MDF_F_CLOSEPRICE1Y	Close Price 1 Year	N	
MDF_F_CLOSEPRICE2Y	Close Price 2 Years	N	
MDF_F_CLOSEPRICE3Y	Close Price 3 Years	N	
MDF_F_CLOSEPRICE5Y	Close Price 5 Years	N	
MDF_F_CLOSEPRICE10Y	Close Price 10 Years	N	
MDF_F_CLOSEPRICWTD	Close Price Week-To-Date	N	
MDF_F_CLOSEPRICEMTD	Close Price Month-To-Date	N	
MDF_F_CLOSEPRICEQTD	Close Price Quarter-To-Date	N	
MDF_F_CLOSEPRICEYTD	Close Price Year-To-Date	N	
MDF_F_CLOSEPRICEPYTD	Close Price Previous Year-To-Date	N	
MDF_F_CLOSEPRICELD	Close Price Since Listing Date	N	
MDF_F_CLOSEBIDYIELD1D	Close Bid Yield 1 Day	N	
MDF_F_CLOSEBIDYIELD1W	Close Bid Yield 1 Week	N	
MDF_F_CLOSEYIELD1D	Close Yield 1 Day	N	
MDF_F_CLOSEYIELD1W	Close Yield 1 Week	N	
MDF_F_CLOSEYIELD2W	Close Yield 2 Weeks	N	
MDF_F_CLOSEYIELD1M	Close Yield 1 Month	N	
MDF_F_CLOSEYIELD3M	Close Yield 3 Months	N	
MDF_F_CLOSEYIELD6M	Close Yield 6 Months	N	
MDF_F_CLOSEYIELD9M	Close Yield 9 Months	N	
MDF_F_CLOSEYIELD1Y	Close Yield 1 Year	N	
MDF_F_CLOSEYIELD2Y	Close Yield 2 Years	N	

MDF_F_CLOSEYIELD3Y	Close Yield 3 Years	N	
MDF_F_CLOSEYIELD5Y	Close Yield 5 Years	N	
MDF_F_CLOSEYIELD10Y	Close Yield 10 Years	N	
MDF_F_CLOSEYIELDWTD	Close Yield Week-To-Date	N	
MDF_F_CLOSEYIELDMTD	Close Yield Month-To-Date	N	
MDF_F_CLOSEYIELDQTD	Close Yield Quarter-To-Date	N	
MDF_F_CLOSEYIELDYTD	Close Yield Year-To-Date	N	
MDF_F_CLOSEYIELDPYTD	Close Yield Previous Year-To-Date	N	
MDF_F_CLOSEYIELDLTD	Close Yield Since Listing Date	N	
MDF_F_ATH	All-Time-High	N	
MDF_F_ATL	All-Time-Low	N	
MDF_F_HIGHPRICE1Y	High Price 1 Year	N	
MDF_F_LOWPRICE1Y	Low Price 1 Year	N	
MDF_F_HIGHPRICE3Y	High Price 3 Years	N	
MDF_F_LOWPRICE3Y	Low Price 3 Years	N	
MDF_F_HIGHPRICE5Y	High Price 5 Years	N	
MDF_F_LOWPRICE5Y	Low Price 5 Years	N	
MDF_F_HIGHPRICE10Y	High Price 10 Years	N	
MDF_F_LOWPRICE10Y	Low Price 10 Years	N	
MDF_F_ATHDATE	All-Time-High Date	N	
MDF_F_ATLDATE	All-Time-Low Date	N	
MDF_F_HIGHPRICE1YDATE	High Price 1 Year Date	N	
MDF_F_LOWPRICE1YDATE	Low Price 1 Year Date	N	
MDF_F_HIGHPRICEYTD	High Price Year-To-Date	N	
MDF_F_LOWPRICEYTD	Low Price Year-To-Date	N	
MDF_F_HIGHPRICEYTDDATE	Date of the HighPriceYTD Price	N	
MDF_F_LOWPRICEYTDDATE	Date of the LowPriceYTD Price	N	
MDF_F_ATHYIELD	All-Time-High Yield	N	
MDF_F_ATLYIELD	All-Time-Low Yield	N	
MDF_F_HIGHYIELD1Y	High Yield 1 Year	N	
MDF_F_LOWYIELD1Y	Low Yield 1 Year	N	
MDF_F_ATHYIELDDATE	All-Time-High Yield Date	N	
MDF_F_ATLYIELDDATE	All-Time-Low Yield Date	N	
MDF_F_HIGHYIELD1YDATE	High Yield 1 Year Date	N	
MDF_F_LOWYIELD1YDATE	Low Yield 1 Year Date	N	
MDF_F_HIGHYIELDYTD	High Yield Year-To-Date	N	
MDF_F_LOWYIELDYTD	Low Yield Year-To-Date	N	
MDF_F_HIGHYIELDYTDDATE	Date of the HighYieldYTD value	N	

MDF_F_LOWYIELDYTDDATE	Date of the LowYieldYTD value	N	
MDF_F_ANNUALIZEDRETURN1Y	Annualized Return 1Y	N	
MDF_F_ANNUALIZEDRETURN2Y	Annualized Return 2Y	N	
MDF_F_ANNUALIZEDRETURN3Y	Annualized Return 3Y	N	
MDF_F_ANNUALIZEDRETURN4Y	Annualized Return 4Y	N	
MDF_F_ANNUALIZEDRETURN5Y	Annualized Return 5Y	N	
MDF_F_ANNUALIZEDRETURN10Y	Annualized Return 10Y	N	
MDF_F_SHARPERATION3Y	Sharpe Ratio 3Y	N	
MDF_F_STANDARDDEVIATION3Y	Standard Deviation 3Y	N	
MDF_F_NORMANAMOUNT	Norman Amount	N	

Corporate Action Messages

Corporate Action			
<i>mref</i>	MDF_M_CORPORATEACTION #23		
<i>mclass</i>	MDF_MC_CORPORATEACTION		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_DELETERECORD	Delete Record	N	The presence of this field indicates that an existing Corporate Action entry with the same Date and Time as this message should be deleted.
MDF_F_DATE	Date	Y	
MDF_F_TIME	Time	Y	
MDF_F_CATYPE	Corporate Action Type	Y	
MDF_F_CASUBTYPE	Corporate Action Sub Type	N	
MDF_F_DIVIDEND	Dividend	N	
MDF_F_DIVIDENDORIGINAL	Original Dividend	N	
MDF_F_ADJUSTMENTFACTOR	Adjustment Factor	N	
MDF_F_NUMBEROFSHARES	Number of Shares	N	
MDF_F_NUMBEROFSHARESDELTA	Number of Shares Delta	N	
MDF_F_NEWSHARES	New Shares	N	
MDF_F_OLDSHARES	Old Shares	N	
MDF_F_SUBSCRIPTIONPRICE	Subscription Price	N	
MDF_F_PERIOD	Period	N	
MDF_F_FISCALPERIOD	Fiscal Period	N	
MDF_F_NOMINALVALUE	Nominal Value	N	
MDF_F_RECORDDATE	Record Date	N	
MDF_F_PAYMENTDATE	Payment Date	N	
MDF_F_ANNOUNCEMENTDATE	Announcement Date	N	
MDF_F_S1	Comment #1	N	Used for "position" for insiders
MDF_F_S2	Comment #2	N	Used for "relation" for insiders
MDF_F_S3	Comment #3	N	Used for "equity type" for insiders
MDF_F_S4	Comment #4	N	Used for "equity subtype" for insiders
MDF_F_S5	Comment #5	N	Used for "transaction code" for insiders
MDF_F_SOURCE	Source	Y	
MDF_F_TID	TID	N	
MDF_F_CLOSEPRICE	Close Price	N	
MDF_F_ISSUECURRENCY	Issue Currency	N	
MDF_F_TRADECURRENCY	Trade Currency	N	
MDF_F_UNDERLYINGID	Underlying Id	N	
MDF_F_SYMBOL	Symbol	N	

MDF_F_NAME	Name	N	
MDF_F_ISIN	ISIN	N	
MDF_F_BOARDLOT	Board Lot	N	
MDF_F_MARKETPLACE	Market Place	N	
MDF_F_LIST	List	N	
MDF_F_REDEMPTIONPRICE	Redemption Price	N	
MDF_F_VOTINGPOWERPRC	Percentage of Voting Power	N	
MDF_F_CAPITALPRC	Percentage of Capital	N	

Currently image requests for Corporate Action messages will be treated like stream requests.

Company Information			
<i>mref</i>	MDF_M_CI #33		
<i>mclass</i>	MDF_MC_CI		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_DELETERECORD	Delete Record	N	The presence of this field indicates that an existing Company Information entry with the same Insref, Type and Sequence as this message should be deleted.
MDF_F_CITYTYPE	Type	Y	
MDF_F_CISUBTYPE	Sub Type	N	
MDF_F_SEQUENCE	Sequence	Y	
MDF_F_S1	String Value #1	N	
MDF_F_S2	String Value #2	N	
MDF_F_S3	String Value #3	N	
MDF_F_S4	String Value #4	N	
MDF_F_S5	String Value #5	N	
MDF_F_S6	String Value #6	N	
MDF_F_S7	String Value #7	N	
MDF_F_S8	String Value #8	N	
MDF_F_S9	String Value #9	N	
MDF_F_S10	String Value #10	N	
MDF_F_S11	String Value #11	N	
MDF_F_S12	String Value #12	N	
MDF_F_S13	String Value #13	N	
MDF_F_S14	String Value #14	N	
MDF_F_S15	String Value #15	N	
MDF_F_N1	Numeric Value #1	N	
MDF_F_N2	Numeric Value #2	N	

MDF_F_N3	Numeric Value #3	N	
MDF_F_N4	Numeric Value #4	N	
MDF_F_N5	Numeric Value #5	N	
MDF_F_N6	Numeric Value #6	N	
MDF_F_N7	Numeric Value #7	N	
MDF_F_N8	Numeric Value #8	N	
MDF_F_N9	Numeric Value #9	N	
MDF_F_N10	Numeric Value #10	N	
MDF_F_I1	Integer Value #1	N	
MDF_F_I2	Integer Value #2	N	
MDF_F_I3	Integer Value #3	N	
MDF_F_I4	Integer Value #4	N	
MDF_F_I5	Integer Value #5	N	
MDF_F_I6	Integer Value #6	N	
MDF_F_I7	Integer Value #7	N	
MDF_F_I8	Integer Value #8	N	
MDF_F_I9	Integer Value #9	N	
MDF_F_I10	Integer Value #10	N	
MDF_F_INSREF1	Insref Reference #1	N	
MDF_F_INSREF2	Insref Reference #2	N	
MDF_F_INSREF3	Insref Reference #3	N	
MDF_F_INSREF4	Insref Reference #4	N	
MDF_F_INSREF5	Insref Reference #5	N	
MDF_F_I5	Intege Value #5	N	
MDF_F_D1	Date Value #1	N	
MDF_F_D2	Date Value #2	N	
MDF_F_D3	Date Value #3	N	

Currently image requests for Company Information messages will be treated like stream requests.

Company Information History			
<i>mref</i>	MDF_M_CIHISTORY #34		
<i>mclass</i>	MDF_MC_CIHISTORY		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_DELETERECORD	Delete Record	N	The presence of this field indicates that an existing Company Information History entry with the same Insref, Type, Sequence and Date as this message should be deleted.
MDF_F_CITYPE	Type	Y	

MDF_F_CISUBTYPE	Sub Type	N	
MDF_F_SEQUENCE	Sequence	Y	
MDF_F_DATE	Date	Y	
MDF_F_S1	String Value #1	N	
MDF_F_S2	String Value #2	N	
MDF_F_S3	String Value #3	N	
MDF_F_S4	String Value #4	N	
MDF_F_S5	String Value #5	N	
MDF_F_S6	String Value #6	N	
MDF_F_S7	String Value #7	N	
MDF_F_S8	String Value #8	N	
MDF_F_S9	String Value #9	N	
MDF_F_S10	String Value #10	N	
MDF_F_S11	String Value #11	N	
MDF_F_S12	String Value #12	N	
MDF_F_S13	String Value #13	N	
MDF_F_S14	String Value #14	N	
MDF_F_S15	String Value #15	N	
MDF_F_N1	Numeric Value #1	N	
MDF_F_N2	Numeric Value #2	N	
MDF_F_N3	Numeric Value #3	N	
MDF_F_N4	Numeric Value #4	N	
MDF_F_N5	Numeric Value #5	N	
MDF_F_N6	Numeric Value #6	N	
MDF_F_N7	Numeric Value #7	N	
MDF_F_N8	Numeric Value #8	N	
MDF_F_N9	Numeric Value #9	N	
MDF_F_N10	Numeric Value #10	N	
MDF_F_I1	Integer Value #1	N	
MDF_F_I2	Integer Value #2	N	
MDF_F_I3	Integer Value #3	N	
MDF_F_I4	Integer Value #4	N	
MDF_F_I5	Integer Value #5	N	
MDF_F_I6	Integer Value #6	N	
MDF_F_I7	Integer Value #7	N	
MDF_F_I8	Integer Value #8	N	
MDF_F_I9	Integer Value #9	N	
MDF_F_I10	Integer Value #10	N	

MDF_F_INSREF1	Insref Reference #1	N	
MDF_F_INSREF2	Insref Reference #2	N	
MDF_F_INSREF3	Insref Reference #3	N	
MDF_F_INSREF4	Insref Reference #4	N	
MDF_F_INSREF5	Insref Reference #5	N	
MDF_F_I5	Intege Value #5	N	
MDF_F_D1	Date Value #1	N	
MDF_F_D2	Date Value #2	N	
MDF_F_D3	Date Value #3	N	

Currently image requests for Company Information History messages will be treated like stream requests.

Company Fundamentals			
<i>mref</i>	MDF_M_FUNDAMENTALS #25		
<i>mclass</i>	MDF_MC_FUNDAMENTALS		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_DELETERECORD	Delete Record	N	The presence of this field indicates that an existing Company Fundamentals entry with the same Period, Currency and Source as this message should be deleted.
MDF_F_DATE	Date	Y	
MDF_F_PERIOD	Period	Y	Will be in 'YYYY-Qx' or 'YYYY' format
MDF_F_FISCALPERIOD	Fiscal Period	N	Will be in "YYYYMMDD – YYYYMMDD" format
MDF_F_ISSUECURRENCY	Currency	Y	
MDF_F_SALES	Total Sales	N	
MDF_F_EBIT	EBIT	N	
MDF_F_EBITA	EBITA	N	
MDF_F_EBITDA	EBITDA	N	
MDF_F_FINANCIALINCOME	Financial Income	N	
MDF_F_FINANCIALCOST	Financial Cost	N	
MDF_F_PRETAXPROFIT	Pre-Tax Profit	N	
MDF_F_NETPROFIT	Net Profit	N	
MDF_F_GROSSPROFIT	Gross Profit (Sales Profit)	N	
MDF_F_EPS	Earnings Per Share	N	
MDF_F_DILUTEDEPS	Diluted Earnings Per Share	N	
MDF_F_ORDERINTAKE	Order Intake	N	
MDF_F_ORDERBACKLOG	Order Backlog	N	
MDF_F_NETINTERESTINCOME	Net Interest Income	N	
MDF_F_NETFININCOME	Net Financial Income	N	

MDF_F_NETFEEANDCOMINCOME	Net Fee and Commission- Income	N	
MDF_F_TOPERATINGEXPENSES	Total Operating Expenses	N	
MDF_F_TOPERATINGINCOME	Total Operating Income	N	
MDF_F_PROFITBEFOREWACL	Profit Before Write-Offs- and Credit Losses	N	
MDF_F_CREDITLOSS	Credit Loss	N	
MDF_F_RENTALINCOME	Rental Income	N	
MDF_F_PROPERTYMGMPRESULT	Property Management- Result	N	
MDF_F_REALIZEDCHGPROP	Realized Changes in- Value of Properties	N	
MDF_F_UNREALIZEDCHGPROP	Unrealized Changes in- Value of Properties	N	
MDF_F_RETURNONEQUITY	Return On Equity	N	
MDF_F_NUMBEROFSHARES	Number of Shares	N	
MDF_F_OPERATINGCASHFLOW	Operating Cash Flow	N	
MDF_F_ADJUSTEDEQUITY	Adjusted Equity	N	
MDF_F_INTANGIBLEASSET	Intangible Asset	N	
MDF_F_GOODWILL	Goodwill	N	
MDF_F_FIXEDASSET	Fixed Asset	N	
MDF_F_FINANCIALASSET	Financial Asset	N	
MDF_F_NONCURRENTASSETS	Noncurrent Asset	N	
MDF_F_INVENTORY	Inventory	N	
MDF_F_OTHERCURRENTASSET	Other Current Asset	N	
MDF_F_ACCOUNTSRECEIVABLE	Accounts Receivable (A/R)	N	
MDF_F_OTHERRECEIVABLES	Other Receivables	N	
MDF_F_SHORTTERMINV	Short Term Investments	N	
MDF_F_CCE	Cash and Cash Equivalents	N	
MDF_F_CURRENTASSETS	Current Assets	N	
MDF_F_TOTALASSETS	Total Assets	N	
MDF_F_SHEQUITY	Shareholders' Equity	N	
MDF_F_PROVISIONS	Provisions	N	
MDF_F_LTLIABILITIES	Long Term Liabilities	N	
MDF_F_CURLIABILITIES	Current Liabilities	N	
MDF_F_TOTSHEQLIABILITIES	Total Shareholder Equity Liabilities	N	
MDF_F_NIBL	Non-Interest-Bearing Liabilities	N	

MDF_F_TOTLIABILITIES	Total Liabilities	N	
MDF_F_IBL	Interest-Bearing Liabilities	N	
MDF_F_CASHFLOWBWC	Free Cash Flow	N	
MDF_F_CASHFLOWAWC	Operating Cash Flow after changes in Working Capital		
MDF_F_CASHFLOWIA	Cash Flow from Investing Activities		
MDF_F_CASHFLOWFA	Cash Flow from Financial Activities		
MDF_F_CASHFLOWTOTAL	Total Cash Flow	N	
MDF_F_NUMEMPLOYEES	Number of Employees	N	
MDF_F_EQUITYRATIO	Equity Ratio	N	
MDF_F_DIVIDEND	Dividend	N	
MDF_F_SOURCE	Source	Y	
MDF_F_INTERESTINCOME	Interest Income	N	
MDF_F_OTHERFINANCIALINCOME	Other Financial Income	N	
MDF_F_INTERESTEXPENSE	Interest Expense	N	
MDF_F_OTHERFINANCIALEXPENSE	Other Financial Expense	N	
MDF_F_MINORITYINTEREST	Minority Interest	N	From the Balance Sheet
MDF_F_MINORITYINTERESTRES	Minority Interest	N	From the Income Statement
MDF_F_ACCOUNTSPAYABLE	Accounts Payable	N	
MDF_F_EVENTLINK	Event Link	N	
MDF_F_EVENTLINGLANGUAGES	Event Link Languages	N	Mandatory if MDF_F_EVENTLINK is present

Currently image requests for Company Fundamentals messages will be treated like stream requests.

Company Estimates			
<i>mref</i>	MDF_M_ESTIMATES #28		
<i>mclass</i>	MDF_MC_ESTIMATES		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_DELETERECORD	Delete Record	N	The presence of this field indicates that an existing Company Estimates entry with the same Source, Period, Field Name, Field Aspect, Field Type and Currency as this message should be deleted.
MDF_F_PERIOD	Period	Y	Will be in 'YYYY', 'YYYY-Qx', 'YYYY-Hx', 'YYYY-MM' or 'YYYY-9M' format
MDF_F_FIELDNAME	Field Name	Y	
MDF_F_FIELDASPECT	Field Aspect	Y	

MDF_F_FIELDTYPE	Field Type	Y	
MDF_F_FIELDUNIT	Field Unit	N	
MDF_F_AVERAGE	Average Value	N	
MDF_F_MIN	Min Value	N	The smallest individual value
MDF_F_MAX	Max Value	N	The largest individual value
MDF_F_COUNT	Number of Values	N	The number of individual values
MDF_F_ISSUECURRENCY	Currency	Y	
MDF_F_SOURCE	Source	Y	
MDF_F_DATE	Date of Entry	N	
MDF_F_TIME	Time of Entry	N	

Currently image requests for Company Estimates messages will be treated like stream requests.

Company Estimates History			
<i>mref</i>	MDF_M_ESTIMATESHISTORY #29		
<i>mclass</i>	MDF_MC_ESTIMATESHISTORY		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_DELETERECORD	Delete Record	N	The presence of this field indicates that an existing Company Estimates History entry with the same Date, Source, Period, Field Name, Field Aspect, Field Type and Currency as this message should be deleted.
MDF_F_PERIOD	Period	Y	Will be in 'YYYY', 'YYYY-Qx', 'YYYY-Hx', 'YYYY-MM' or 'YYYY-9M' format
MDF_F_FIELDNAME	Field Name	Y	
MDF_F_FIELDASPECT	Field Aspect	Y	
MDF_F_FIELDTYPE	Field Type	Y	
MDF_F_FIELDUNIT	Field Unit	N	
MDF_F_AVERAGE	Average Value	N	
MDF_F_MIN	Min Value	N	The smallest individual value
MDF_F_MAX	Max Value	N	The largest individual value
MDF_F_COUNT	Number of Values	N	The number of individual values
MDF_F_ISSUECURRENCY	Currency	Y	
MDF_F_SOURCE	Source	Y	
MDF_F_DATE	Date of Entry	Y	
MDF_F_TIME	Time of Entry	N	

Currently image requests for Company Estimates History messages will be treated like stream requests.

Key Ratios

<i>mref</i>	MDF_M_KEYRATIOS #27		
<i>mclass</i>	MDF_MC_KEYRATIOS		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_DIVIDENDYIELD	Dividend Yield	N	
MDF_F_PER	P/E Ratio	N	
MDF_F_PSR	P/S Ratio	N	
MDF_F_PRICETOCASHFLOW	Price To Cash Flow Ratio	N	
MDF_F_PRICETOADJUSTEDEQUITY	Price To Adjusted Equity Ratio	N	
MDF_F_DPS	Dividend Per Share. Divide by LastPrice and multiply by 100 to get the Dividend Yield.	N	From last Annual Report
MDF_F_EPS	Earnings Per Share. Divide LastPrice by vale to get P/E.	N	From last Annual Report
MDF_F_EPSTTM	Earnings Per Share. Divide LastPrice by vale to get P/E.	N	Trailing Twelve Months
MDF_F_EPSLAST	Earnings Per Share. Divide LastPrice by vale to get P/E.	N	From last Interim Report
MDF_F_SPS	Sales Per Share. Divide LastPrice by vale to get P/S.	N	From last Annual Report
MDF_F_SPSTTM	Sales Per Share. Divide LastPrice by vale to get P/S.	N	Trailing Twelve Months
MDF_F_SPSLAST	Sales Per Share. Divide LastPrice by vale to get P/S.	N	From last Interim Report
MDF_F_BVPS	Book Value of equity Per Share. Divide LastPrice by vale to get P/B.	N	From last Annual Report
MDF_F_BVPSLAST	Book Value of equity Per Share. Divide LastPrice by vale to get P/B.	N	From last Interim Report
MDF_F_CFPS	Cash Flow Per Share. Divide LastPrice by vale to get P/CF.	N	From last Annual Report
MDF_F_CFPSTTM	Cash Flow Per Share. Divide LastPrice by vale to get P/CF.	N	Trailing Twelve Months
MDF_F_CFPSLAST	Cash Flow Per Share. Divide LastPrice by vale to get P/CF.	N	From last Interim Report
MDF_F_ROE	Return on Equity	N	From last Annual Report
MDF_F_ROETTM	Return on Equity	N	Trailing Twelve Months
MDF_F_ROELAST	Return on Equity	N	From last Interim Report
MDF_F_ROA	Return on Assets	N	From last Annual Report
MDF_F_ROATTM	Return on Assets	N	Trailing Twelve Months
MDF_F_ROALAST	Return on Assets	N	From last Interim Report
MDF_F_GM	Gross Margin	N	From last Annual Report
MDF_F_GMTTM	Gross Margin	N	Trailing Twelve Months

MDF_F_GMLAST	Gross Margin	N	From last Interim Report
MDF_F_OM	Operating Margin	N	From last Annual Report
MDF_F_OMTTM	Operating Margin	N	Trailing Twelve Months
MDF_F_OMLAST	Operating Margin	N	From last Interim Report
MDF_F_PM	Profit Margin	N	From last Annual Report
MDF_F_PMTTM	Profit Margin	N	Trailing Twelve Months
MDF_F_PMLAST	Profit Margin	N	From last Interim Report
MDF_F_DATE	Date	N	
MDF_F_TIME	Time	N	

The Time and Date fields are sent on all image replies and on stream replies if the key ratios are for another time/date than now (I.e if the client is subscribing to delayed data)

Greeks			
<i>mref</i>	MDF_M_GREEKS #42		
<i>mclass</i>	MDF_MC_GREEKS		
<i>Tag</i>	<i>Name</i>	<i>Req'd</i>	<i>Comments</i>
MDF_F_IV	Implied Volatility on Mid	N	
MDF_F_IVBID	Implied Volatility on Bid	N	
MDF_F_IVASK	Implied Volatility on Ask	N	
MDF_F_DELTA	Delta	N	
MDF_F_GAMMA	Gamma	N	
MDF_F_RHO	Rho	N	
MDF_F_THETA	Theta	N	
MDF_F_VEGA	Vega	N	

The Time and Date fields are sent on all image replies and on stream replies if the greeks are for another time/date than now (I.e if the client is subscribing to delayed data)

Changelog

2021-07-21 Added lots of new fields to **MDF_M_CI** and **MDF_M_CIHISTORY**.

2021-04-23 Altered the values for the **MDF_F_I1** in **MDF_M_ORDERBOOKFLUSH**.

2020-11-29 Added **MDF_F_I1** to **MDF_M_ORDERBOOKFLUSH**.

2020-11-24 Added **MDF_M_QUOTEBO**.

2020-11-23 Added **MDF_F_EXPIRATIONTYPE** to **MDF_M_BASICDATA**.

2020-11-19 Added **MDF_F_DAYCOUNTCONVENTION** to **MDF_M_BASICDATA**.

2020-11-13 Added **MDF_F_IVBID** and **MDF_F_IVASK** to **MDF_M_GREEKS**.

2020-10-16 Altered the Market By Order messages.

- 2020-10-09** *Added MDF_M_GREEKS.*
- 2020-08-11** *Added the Market By Order messages.*
- 2020-05-29** *Added MDF_F_MARKETPLACE to MDF_M_INSTRUMENTDELETE.*
- 2020-03-03** *Added MDF_F_COUPONFREQUENCY to MDF_M_BASICDATA.*
- 2020-01-16** *Added MDF_F_FIGISECURITYTYPE to MDF_M_BASICDATA.*
- 2019-12-16** *The MIFID07090 field changed name in EMTv3 Endorsed (2019-12-10)*
- 2019-12-04** *Changed the name of some new fields in MDF_M_MIFID and MDF_M_MIFIDHISTORY to match the latest EMTv3 template (2019-09-20).*
- 2019-11-15** *Added FIGI fields to MDF_M_BASICDATA and MDF_M_CORPORATEACTION. Added the MDF_F_MMO field to the Orderbook messages.*
- 2019-09-23** *Added EMTv3 fields to MDF_M_MIFID and MDF_M_MIFIDHISTORY.*
- 2019-06-20** *Clarified some fields for MDF_M_REQUEST.*
- 2019-06-17** *Corrected the new fields to MDF_M_KEYRATIOS.*
- 2019-06-12** *Added lots of new fields to MDF_M_KEYRATIOS while deprecating some.*
- 2019-05-23** *Added MDF_F_SUBMARKET to MDF_M_BASICDATA.*
- 2019-03-20** *Added MDF_M_MAPPINGS.*
- 2019-01-07** *Added MDF_F_HIGHPRICE3Y, MDF_F_HIGHPRICE5Y, MDF_F_HIGHPRICE10Y, MDF_F_LOWPRICE3Y, MDF_F_LOWPRICE5Y and MDF_F_LOWPRICE10Y to MDF_M_PERFORMANCE.*
- 2018-12-18** *Added MDF_F_ACTIVESHARE and MDF_F_TRACKINGERROR to MDF_M_BASICDATA.*
- 2018-11-22** *Added MDF_F_NEWSIDREPLACE to MDF_M_NEWSHEADLINE.*
- 2018-11-20** *Added MDF_M_MIFIDHISTORY.*
- 2018-10-23** *Added MDF_F_NEWSCODINGTAGS and MDF_F_NEWSCODINGIMPACT to MDF_F_NEWSHEADLINE.*
- 2018-07-17** *Added MDF_F_CVR, MDF_F_KENNITALA, MDF_F_YTUNNUS and MDF_F_ORGNUMNO to MDF_M_BASICDATA.*
- 2018-02-23** *Added MDF_F_OPERATINGMIC to MDF_M_BASICDATA.*
- 2017-11-07** *Added MDF_M_PRIIP and MDF_M_MIFID. Added some MDF_M_PRIIP fields to MDF_M_L10N*
- 2017-11-03** *Added MDF_F_MMT to MDF_M_TRADE.*
- 2017-02-20** *Added MDF_F_CIK to MDF_M_BASICDATA.*

- 2016-11-18** *Added MDF_F_CSR to MDF_M_BASICDATA.
Added MDF_NORMANAMOUNT to MDF_M_PERFORMANCE.
Added MDF_S11 to MDF_M_CI and MDF_M_CIHISTORY.*
- 2016-11-10** *Extended the document with the actual MREF values.*
- 2016-10-06** *Added MDF_F_NEWSCODINGREGULATORY to MDF_M_NEWSHEADLINE..*
- 2016-06-08** *Added MDF_F_VOLUMEDIMENSION to MDF_M_BASICDATA.*
- 2016-04-20** *Added MDF_F_TRADEAGREEMENTTIME, MDF_F_TRADEAGREEMENTDATE, MDF_F_MIC and MDF_F_TRADECURRENCY to MDF_M_TRADE.*
- 2016-02-03** *Added MDF_F_PRODUCTCODE and MDF_F_QUOTINGTYPE to MDF_M_BASICDATA.*
- 2015-12-08** *Added MDF_F_CLOSEPRICETYPE and MDF_F_CLOSETRADEPRICE to MDF_M_PRICEHISTORY.*
- 2015-11-12** *Added MDF_F_MARKETOPENDAYS to MDF_M_BASICDATA.*
- 2015-11-12** *Added MDF_F_LEGALSTRUCTURE, MDF_F_ONGOINGCHARGE and MDF_F_PRICINGFREQUENCY to MDF_M_BASICDATA.*
- 2015-09-21** *Added MDF_F_SPECIALCONDITION to MDF_M_BASICDATA.*
- 2015-09-07** *Added MDF_F_MARKETOPEN, MDF_F_MARKETCLOSE and MDF_F_MARKETEARLYCLOSE to MDF_M_BASICDATA.*
- 2014-12-05** *Added MDF_F_OUTSTANDINGAMOUNT, MDF_F_INTERESTRATE and MDF_F_MARKETMAKER to MDF_M_BASICDATA.*
- 2014-09-23** *Added MDF_M_CI and MDF_M_CIHISTORY. Renamed the MDF_F_FREETEXTCOMMENTx tags as MDF_F_Sx.*
- 2014-08-28** *Added MDF_F_ANNUALIZEDRETURN1Y, MDF_F_ANNUALIZEDRETURN2Y and MDF_F_ANNUALIZEDRETURN4Y to MDF_M_PERFORMANCE.*
- 2014-08-06** *Added info on how entries for the MDF_M_PRICEHISTORY, MDF_M_CORPORATEACTIONS, MDF_M_FUNDAMENTALS, MDF_M_ESTIMATES and MDF_M_ESTIMATESHISTORY will be notified for deletion.
Added the MDF_M_L10N message.*
- 2014-02-28** *Removed MDF_F_DIVIDENDORIGINAL from MDF_M_CORPORATEACTIONS.*
- 2014-01-24** *Added MDF_F_MAXLEVEL to MDF_M_BASICDATA.*
- 2014-01-21** *Removed MDF_F_ORDERINTAKE, MDF_F_ORDERBACKLOG, MDF_F_NETINTERESTINCOME, MDF_F_NETFEEANDCOMINCOME, MDF_F_TOPERATINGEXPENSES, MDF_F_TOPERATINGINCOME, MDF_F_PROFITBEFOREWACL, MDF_F_CREDITLOSS, MDF_F_RENTALINCOME, MDF_F_PROPERTYMGMTRESULT, MDF_F_REALIZEDCHGPROP, MDF_F_UNREALIZEDCHGPROP, MDF_F_RETURNNONEQUITY, MDF_F_ADJUSTEDEQUITY and MDF_F_TOTLIABILITIES from MDF_M_FUNDAMENTALS.

Added MDF_F_INTERESTINCOME, MDF_F_OTHERFINANCIALINCOME,*

MDF_F_INTERESTEXPENSE, MDF_F_OTHERFINANCIALEXPENSE, MDF_F_MINORITYINTERESTRES, MDF_F_ACCOUNTSPAYABLE, MDF_F_EVENTLINK and MDF_F_EVENTLINKLANGUAGES to MDF_M_FUNDAMENTALS.

2013-09-11 *Added MDF_F_BROKERS to MDF_M_BASICDATA.*

2013-05-10 *Added MDF_F_OFFBOOKQUANTITY, MDF_F_DARKQUANTITY, MDF_F_OFFBOOKTURNOVER and MDF_F_DARKTURNOVER to MDF_M_QUOTE.
Added MDF_F_CLOSEOFFBOOKQUANTITY, MDF_F_CLOSEDARKQUANTITY, MDF_F_CLOSEOFFBOOKTURNOVER and MDF_F_CLOSEDARKTURNOVER to MDF_M_PRICEHISTORY.*

2013-04-12 *Added MDF_F_CFI to MDF_M_BASICDATA.*

2013-03-27 *Added MDF_F_KIID to MDF_M_BASICDATA.*

2013-01-17 *Added MDF_F_FREETEXTCOMMENT1 to MDF_M_LOGON.*

2012-10-08 *Added MDF_F_PARTICIPATIONRATE and MDF_F_ISSUEPRICE to MDF_M_BASICDATA.*

2012-08-07 *Added MDF_F_FINANCINGLEVEL to MDF_M_BASICDATA.*

2012-05-20 *Added MDF_F_CLOSEBIDPRICE1D, MDF_F_CLOSEBIDPRICE1W, MDF_F_CLOSEBIDYIELD1D and MDF_F_CLOSEBIDYIELD1W to MDF_M_PERFORMANCE.
Added MDF_F_FINANCIALINCOME and MDF_F_FINANCIALCOST to MDF_M_FUNDAMENTALS.*

2012-05-03 *Added MDF_F_CONTRACTVALUE to MDF_M_BASICDATA.*

2012-02-17 *Added MDF_F_LOGOTYPE and MDF_F_ISSUENAME to MDF_M_BASICDATA.*

2012-01-31 *Added MDF_F_ASIAITAILSTART and MDF_F_ASIAITAILEND to MDF_M_BASICDATA.*

2011-12-14 *Added MDF_F_PRICETYPE to MDF_M_BASICDATA.*

2011-12-12 *Added MDF_M_UNSUBSCRIBE.
Added MDF_F_TICKTABLE and MDF_F_TICKSIZES to MDF_M_BASICDATA.*

2011-11-18 *Added MDF_M_NETORDERIMBALANCE*

2011-11-10 *Added MDF_F_CAP to MDF_M_BASICDATA*

2011-09-27 *Added MDF_F_SETTLEMENTTYPE to MDF_M_BASICDATA*

2011-06-28 *Added MDF_F_CLOSEPRICE2W and MDF_F_CLOSEYIELD2W to MDF_M_PERFORMANCE.
Added MDF_F_CONVERTFROMDATE, MDF_F_CONVERTTODATE and MDF_F_CONVERSIONPRICE to MDF_M_BASICDATA.
Added MDF_F_DURATION to MDF_M_QUOTE.*

2011-04-20 *Added MDF_F_FIELDUNIT to MDF_M_ESTIMATES. Added the MDF_M_ESTIMATESHISTORY message.*

2011-03-08 *Reworked MDF_M_ESTIMATES*

2011-02-18 Added MDF_F_ISSUECURRENCY to MDF_M_FUNDAMENTALS

2011-02-17 Added MDF_F_SHORTDESCRIPTION, MDF_F_FUNDRISK and MDF_F_EUSIPA to MDF_M_BASICDATA.

Added MDF_F_NEWSRANK to MDF_M_NEWSHEADLINE.

2010-11-10 Added MDF_F_PRIMARYMARKETPLACE to MDF_M_BASICDATA.

Added MDF_F_FISCALPERIOD to MDF_M_CORPORATEACTIONS.

Added MDF_F_PERIOD and MDF_F_FISCALPERIOD to MDF_M_FUNDAMENTALS.

2010-10-26 Added MDF_F_INSTRUMENTSUBSUBCLASS to MDF_M_BASICDATA

2010-10-14 Added MDF_F_TRADEDTHROUGHDATE, MDF_F_TOTALFEE,

MDF_F_DIVIDENDTYPE and MDF_F_DIVIDENDFREQUENCY to MDF_M_BASICDATA

2010-08-10 Added MDF_F_COUPONRATE, MDF_F_COUPONDATE, MDF_F_BARRIERPRICE, MDF_F_MORNINGSTARRATING, MDF_F_SALESFEE, MDF_F_PURCHASEFEE, MDF_F_MINSTARTAMOUNT, MDF_F_MINSUBSCRIPTIONAMOUNT, MDF_F_PERFORMANCEFEE, MDF_F_MINADDITIONALAMOUNT, MDF_F_CEOADMISSIONDATE and MDF_F_CHAIRMANADMISSIONDATE to MDF_M_BASICDATA.

Added MDF_F_ANNUALIZEDRETURN3Y, MDF_F_ANNUALIZEDRETURN5Y, MDF_F_ANNUALIZEDRETURN10Y, MDF_F_STANDARDDEVIATION3Y and MDF_F_SHARPERATIO3Y to MDF_M_PERFORMANCE.

2010-06-17 Added MDF_F_INSTRUMENTCLASS, MDF_F_INSTRUMENTSUBCLASS and MDF_F_CONSTITUENTS to MDF_M_BASICDATA

2010-06-15 Added MDF_F_FUNDBENCHMARKINSREF to MDF_M_BASICDATA

2010-06-11 Added MDF_F_CUSIP, MDF_F_WKN, MDF_F_UCITS and MDF_F_INCEPTIONDATE to MDF_M_BASICDATA

2010-06-07 Added MDF_F_ATHYIELD, MDF_F_ATLYIELD, MDF_F_ATHYIELDDATE, MDF_F_ATLYIELDDATE, MDF_F_HIGHYIELD1Y, MDF_F_LOWYIELD1Y, MDF_F_HIGHYIELDYTD, MDF_F_LOWYIELDYTD, MDF_F_HIGHYIELDYTDDATE, MDF_F_LOWYIELDYTDDATE, MDF_F_HIGHYIELD1YDATE, MDF_F_LOWYIELD1YDATE

2010-06-02 Added MDF_F_CLOSEYIELD1D, MDF_F_CLOSEYIELD1W, MDF_F_CLOSEYIELD1M, MDF_F_CLOSEYIELD3M, MDF_F_CLOSEYIELD6M, MDF_F_CLOSEYIELD9M, MDF_F_CLOSEYIELD1Y, MDF_F_CLOSEYIELD2Y, MDF_F_CLOSEYIELD3Y, MDF_F_CLOSEYIELD5Y, MDF_F_CLOSEYIELD10Y, MDF_F_CLOSEYIELDWTD, MDF_F_CLOSEYIELDMTD, MDF_F_CLOSEYIELDQTD, MDF_F_CLOSEYIELDYTD, MDF_F_CLOSEYIELDPYTD and MDF_F_CLOSEYIELDLTD to MDF_M_PERFORMANCE

2010-05-11 Added MDF_F_FUNDYEARLYMGMTFEE, MDF_F_FUNDPPMFEE, MDF_F_FUNDPPMTYPE, MDF_F_FUNDBENCHMARK, MDF_F_FUNDLEVERAGE, MDF_F_FUNDDIRECTION, MDF_F_PROSPECTUS, MDF_F_GEOFOCUSREGION, MDF_F_GEOFOCUSCOUNTRY and MDF_F_OPENINTEREST to MDF_M_BASICDATA.

Added MDF_F_CLOSEPRICE3Y and MDF_F_CLOSEPRICELD to MDF_M_PERFORMANCE.

2010-02-08 Added MDF_F_SOURCEID and MDF_F_ISSUER to MDF_M_BASICDATA

2010-01-12 Added MDF_F_CONTRACTSIZE and MDF_F_BASERATIO to MDF_M_BASICDATA

2009-10-30 Added MDF_F_GROSSPROFIT, MDF_F_INTANGIBLEASSET, MDF_F_GOODWILL, MDF_F_FIXEDASSET, MDF_F_FINANCIALASSET, MDF_F_NONCURRENTASSET, MDF_F_INVENTORY, MDF_F_OTHERCURRENTASSET, MDF_F_ACCOUNTSRECEIVABLE, MDF_F_OTHERRECEIVABLES,

MDF_F_SHORTTERMINV, MDF_F_CCE, MDF_F_CURRENTASSETS, MDF_F_TOTALASSETS, MDF_F_SHEQUITY, MDF_F_MINORITYINTEREST, MDF_F_PROVISIONS, MDF_F_LTLIABILITIES, MDF_F_CURLIABILITIES, MDF_F_TOTSHEQLIABILITIES, MDF_F_NIBL, MDF_F_TOTLIABILITIES, MDF_F_IBL, MDF_F_CASHFLOWBWC, MDF_F_CASHFLOWAWC, MDF_F_CASHFLOWIA, MDF_F_CASHFLOWFA, MDF_F_CASHFLOWTOTAL, MDF_F_NUMEMPLOYEES and MDF_F_DIVIDEND to MDF_M_FUNDAMENTALS.

2009-10-29 *Added MDF_F_VOTINGPOWERPRC and MDF_CAPITALPRC to MDF_M_CORPORATEACTION.*

Added MDF_F_GENDERCEO, MDF_F_BIRTHEARCEO, MDF_F_GENDERCHAIRMAN, MDF_F_BIRTHEARCHAIRMAN, MDF_F_ADDRESS, MDF_F_POSTALCODE, MDF_F_CITY, MDF_F_TELEPHONE, MDF_F_FAX, MDF_F_EMAIL and MDF_F_IMPORTANTEVENTS to MDF_M_BASICDATA.

2009-10-15 *Added MDF_F_TRADEYIELD to MDF_M_TRADE*

2009-10-12 *Added MDF_M_ESTIMATES*

2009-09-02 *Added MDF_F_HIGHPRICEYTD, MDF_F_LOWPRICEYTD, MDF_F_HIGHPRICEYTDDATE and MDF_F_LOWPRICEYTDDATE to MDF_M_PERFORMANCE.*

2009-08-07 *Added MDF_F_PRICETOCASHFLOW and MDF_F_PRICETOADJUSTEDEQUITY to MDF_M_KEYRATIOS.*

Added MDF_F_OPERATINGCASHFLOW, MDF_F_ADJUSTEDEQUITY and MDF_F_NUMBEROFSHARES to MDF_M_FUNDAMENTALS.

2009-06-11 *Added MDF_F_SOURCE to MDF_M_FUNDAMENTALS.*

Changed MDF_F_SOURCE to mandatory for MDF_M_PRICEHISTORY and MDF_M_CORPORATEACTION.

2009-06-01 *Added MDF_F_SECTOR to MDF_F_BASICDATA.*

Added MDF_F_REDEMPTIONPRICE, MDF_F_FREETEXTCOMMENT2, MDF_F_FREETEXTCOMMENT3, MDF_F_FREETEXTCOMMENT4, MDF_F_FREETEXTCOMMENT5 to MDF_M_CORPORATEACTION.

Added MDF_F_ATHDATE, MDF_F_ATLDATE, MDF_F_HIGHPRICE1YDATE and MDF_F_LOWPRICE1YDATE to MDF_M_PERFORMANCE.

2009-05-13 *Moved MDF_F_RETURNONEQUITY to MDF_M_FUNDAMENTALS. Removed MDF_F_TOTALNUMBEROFSHARES (MDF_F_NUMBEROFSHARES on a company instrument contains the total number of shares so this field was unnecessary).*

2009-04-29 *Added MDF_M_KEYRATIOS, MDF_F_CHAIRMAN, MDF_F_CEO, MDF_F_WEBSITE, MDF_F_ORGNUM and MDF_F_DESCRIPTION.*

2009-04-27 *Added MDF_F_NEWSCODINGISIN*

2009-04-16 *Added MDF_M_PERFORMANCE*

2009-04-15 *Added MDF_M_FUNDAMENTALS*

2009-04-13 *Described when MDF_F_TIME and MDF_F_DATE are sent on MDF_M_QUOTE, also added them to MDF_M_TRDAESTATE.*

2009-04-02 *Added MDF_M_TRADESTATE*

2009-03-30 *Added MDF_F_VWAP and MDF_F_CLOSEVWAP*

2009-03-27 *Added MDF_F_UNCHANGEDPAID, MDF_F_MINUSPAID, MDF_F_PLUSPAID to MDF_M_QUOTE*

2009-03-23 *Initial version*

