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## STOCK TRADING SYSTEM FOR HOSE

# THE DOCUMENT INFOGATE SPECIFICATION MESSAGES

TRANSACTIONAL INFORMATION SYSTEMS-INFO GATE

The code project:

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# Details of the message exchange

# 1.1 Message Index

Is the information content of the index that index system to send out

Tag	Field Name	Value	Data Type	Note
8	BeginString	HNX. TDS. 1		Version information specified by the HOSE
9	BodyLength			The length of the message. Not the tag 8.9
35	MsgType	I		Type of message
49	SenderCompID			Sender ID. If the message sent by the HOSE, then the value is the "HOSE"
52	SendingTime			Send time in UTC (also known as GMT) in format yyyyMMdd-HH: mm: ss
1	IDIndex		Int	The ID of the root index (price index and other indicators related to DPI, TRI it will have the same ID)
2	IndexCode		String	Index codes
3	Value		Decimal	The index value at the present time or

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		I	TRI value at the present time or
			The DPI value of the day
4	CalTime	String	Computer time in the format HH: mm: ss
5	Change	Decimal	Index or change values VOTERS compared with the previous day. Do not push out with DPI
6	RatioChange	Decimal	The rate of change of the indicator or TRI. Do not push out with DPI
7	TotalQtty	Decimal	The total transaction volume of the joint common commands (batches). Do not push out with DPI and TRI
14	TotalValue	Decimal	The total value of transactions match the usual command (batch). Do not push out with DPI and TRI
19	TradingDate	Date	Current transaction date in format YYYYMMdd
21	CurrentStatus	String	The status of the index
22	TotalStock	Decimal	The total number of securities in the basket. Do not push out with DPI and TRI
23	PriorIndexVal	Decimal	The value index, TRI or DPI the previous day
24	HighestIndex	Decimal	Index value, or TRI. Do not push out with DPI
25	LowestIndex	Decimal	Index value or lowest VOTER. Do not push out with DPI
26	CloseIndex	Decimal	Index value or TRI when closed. Do not push out with DPI
27	TypeIndex	String	Types of index
18	IndexName	String	Name of the indicator, the name TRI or DPI

## 1.2 Message about the basket of indicators

Content is information about the securities in the basket of indicators

Tag	Field Name	Value	Data Type	Note
8	BeginString	HNX. TDS. 1		Version information specified by the HOSE
9	BodyLength			The length of the message. Not the tag 8.9
35	MsgType	S		Type of message
49	SenderCompID			Sender ID. If the message sent by the HOSE, then the value is the "HOSE"
52	SendingTime			Send time in UTC (also known as GMT) in format yyyyMMdd-HH: mm: ss
1	IDIndex		int	ID of the index
2	IndexCode		string	Index codes
15	IDSymbol		int	ID of the securities in the basket
55	Symbol		string	Stock code
11	TotalQtty		Double	Volume index
12	Weighted		Double	Weight calculate
28	AddDate		Date	Day for stocks in the basket in the format yyMMdd

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#### 1.3 Message stockinfo

Send details about stock market members, this is the Msg that TDS systems send BroadCast and then BroadCact send market members.

Tag	Field Name	Value	Data Type	Note
8	BeginString	HNX. TDS. 1		Version information specified by the HOSE
9	BodyLength			The length of the message. Not the tag 8.9
35	MsgType	SI		Type of message
49	SenderCompID			Sender ID. If the message sent by the HOSE, then the value is the "HOSE"
52	SendingTime			Send time in UTC (also known as GMT) in format yyyyMMdd-HH: mm: ss
55	Symbol		string	Stock code
15	SymbolID		decimal	Stock ID
425	BoardCode		String	The stock's trading code
336	TradingSessionID		String	Session code.
340	TradSesStatus		String	Transaction status (related session)
326	SecurityTradingStatus		Int	Stock status
327	ListingStatus		Int	Stock status
167	SecurityType		string	Stock type
225	IssueDate		Date	Release date in the format yyyyMMdd
106	Issuer		string	The issuer (currently not eject)
107	SecurityDesc		String	More description about stock
132	BestBidPrice		int	The price of the best order of matching the GD (even batch)
1321	BestBidQtty		int	The volume purchased GD's best match of commands (batches)
133	BestOfferPrice		int	Reviews latest GD's best selling match of commands (batches)
1331	BestOfferQtty		int	The volume purchased GD's best match of commands (batches)
134	TotalBidQtty		Double	The total purchase order matching CAT's KL batches of odd (minus the mass edit, cancel)
135	TotalOfferQtty		Double	The total sale of matching CAT set KL batch numbers (except the mass edit, cancel)
260	BasicPrice		int	Reference price
333	FloorPrice		int	Price floor
332	CeilingPrice		int	Price ceiling
334	Parvalue		int	Face value of securities
31	MatchPrice		int	The most recent match of price GD even batch order matching
32	MatchQtty		int	Match near the GD's order matching blanket batch
137	OpenPrice		int	Open price
138	PriorOpenPrice		int	Price opened the session before the current session
139	ClosePrice		int	Closing price
140	PriorClosePrice		int	Price closed sessions before the current session
387	TotalVolumeTraded		Double	The total of transactions matching the GD KL and agreement (as even and odd)
3871	TotalValueTraded		Double	The total transaction value of order matching and EDUCATION agreement (as even and odd)
631	MidPx		int	The normal price

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388	Tradingdate	Date	Current transaction date in format yyyyMMdd
399	Time	string	Time in the format HH: mm: ss
400	TradingUnit	int	The minimum trading unit
109	TotalListingQtty	Double	Volume listing
17	DateNo	int	Trading days (from the date of listing)
230	AdjustQtty	int	Backup, do not use
232	ReferenceStatus	string	The status of implementation of the right to affect the stock price:
233	AdjustRate	int	Backup, do not use
244	DividentRate	int	Backup, do not use
255	CurrentPrice	int	Reviews of joints. When finished, the periodic session is expected to price match
2551	CurrentQtty	int	The volume of the joint session. When finished, the periodic session as expected mass joints
266	HighestPrice	int	Implementation of the GD price match orders and agreements (even batch)
2661	LowestPrice	 int	Price lowest implementation of order matching and EDUCATION agreement (odd)
277	PriorPrice	int	Price matches the previous command (batch). No trading agreement.
310	MatchValue	Double	The closest matching values of D lot numbers matching
320	OfferCount	int	The total number of sales orders of odd lot order matching EDUCATION
321	BidCount	int	The total buy of GD even batch order matching
391	NM_TotalTradedQtty	Double	The total trading volume of GD even batch order matching
392	NM_TotalTradedValue	Double	The total transaction value of GD even batch order matching
393	PT_MatchQtty	Double	Volume of transactions (as even and odd)
3931	PT_MatchPrice	int	The price of the transaction agreement (as even and odd)
394	PT_TotalTradedQtty	Double	The total volume of transactions (as even and odd)
3941	PT_TotalTradedValue	Double	The total value of the transaction agreement (as even and odd)
395	TotalBuyTradingQtty	Double	The total volume of purchase order matching and GD's joint agreement (as even and odd)
3951	BuyCount	int	Total purchase order matching CAT's joints and MOU (as even and odd)
3952	TotalBuyTradingValue	Double	The total value of the purchase order matching and GD's joint agreement (as even and odd)
396	TotalSellTradingQtty	Double	The total sales volume of order matching and GD joint MOU (as even and odd)
3961	SellCount	int	The total number of sales orders and order matching CAT's joints MOU (as even and odd)
3962	TotalSellTradingValue	Double	The total sales value of joint command and joint EDUCATION agreement (as even and odd)
397	BuyForeignQtty	Double	The total purchase volume of joints NĐT NN. Apply for matching EDUCATION and agreement (as even and odd)

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3971	BuyForeignValue	Double	The total value of the purchase of the joint NĐTNN. Apply for matching EDUCATION and agreement (as even and odd)
398	SellForeignQtty	Double	The total sales volume of joints NĐT NN. Apply for matching EDUCATION and agreement (as even and odd)
3981	SellForeignValue	Double	The total sales value of NĐTNN joints. Apply for matching EDUCATION and agreement (as even and odd)
3301	RemainForeignQtty	int	The amount of rest that allows purchase order NDTNN
541	MaturityDate	Date	Backup, do not use
223	CouponRate	Double	Backup, do not use
1341	TotalBidQtty_OD	Double	The total purchase order matching CAT's KL batches of odd (minus the mass edit, cancel)
1351	TotalOfferQtty_OD	Double	The total sale of matching CAT set KL plot (except mass edit, cancel)

## 1.4 Message TopNPrice

This is the msg many steps that the HOSE will send the market members. Only computer for matching command often, without the advertising order agreement.

Tag	Field Name	Value	Data Type	Note
8	BeginString	HNX. TDS. 1		Version information specified by the HOSE
9	BodyLength			The length of the message. Not the tag 8.9
35	MsgType	HO CHI MINH CITY		Type of message
49	SenderCompID			Sender ID. If the message sent by the HOSE, then the value is the "HOSE"
52	SendingTime			Send time in UTC (also known as GMT) in format yyyyMMdd-HH: mm: ss
55	Symbol		string	Stock code
425	BoardCode		string	The stock's trading code
555	NoTopPrice		int	Best price of
This section	will repeat for each best rates		•	
556	NumTopPrice		int	Number of rates: 1, 2, 3, 4,
132	BestBidPrice		int	The purchase price
1321	BestBidQtty		int	Volume purchase
133	BestOfferPrice		int	Sale price
1331	BestOfferQtty		int	Sales volume
End recurre	ence			

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## 1.5 Message TopPriceOddLot

This is the third batch of retail price msg sent to market members, Only counts for regular order matching command, the command does not take advertising agreement.

Tag	Field Name	Request	Value	Note
8	BeginString	Y	HNX. TDS. 1	Version information specified by the HOSE
9	BodyLength			The length of the message. Not the tag 8.9
35	MsgType	Υ	РО	Type of message
49	SenderCompID	Υ		The sender
52	SendingTime	Y		Send time in UTC (also known as GMT) in format yyyyMMdd-HH: mm: ss
55	Symbol	Υ		Stock code
425	BoardCode	N		The stock's trading code
132	BidPrice_1	N		The purchase price of 1
1321	BidQtty_1	N		KL purchase 1
133	BidPrice_2	N		Purchase price 2
1331	BidQtty_2	N		KL purchase 2
134	BidPrice_3	N		The purchase price of 3
1341	BidQtty_3	N		KL purchase 3
135	OfferPrice_1	N		Sale price 1
1351	OfferQtty_1	N		KL purchase 1
136	OfferPrice_2	N		Sale price 2
1361	OfferQtty_2	N		KL purchase 2
137	OfferPrice_3	N		Sale price 3
1371	OfferQtty_3	N		KL purchase 3

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#### 1.6 Message BoardInfo

This is the msg Board transaction information will send to the members of the market, the information system TDS calculation.

Tag	Field Name	Value	Data Type	Note
8	BeginString	HNX. TDS. 1		Version information specified by the HOSE
9	BodyLength			The length of the message. Not the tag 8.9
35	MsgType	BI		Type of message
49	SenderCompID			Sender ID. If the message sent by the HOSE, then the value is the "HOSE"
52	SendingTime			Send time in UTC (also known as GMT) in format yyyyMMdd-HH: mm: ss
425	BoardCode		string	Transaction table code
426	BoardStatus		string	The status of the table
336	TradingSessionID		String	Session code
340	TradSesStatus		String	Transaction status
421	Name		string	The name of the table
422	Shortname		string	Abbreviated name of the table
388	Tradingdate		Date	Current transaction date in format yyyyMMdd
399	Time		String	The trading time in the format HH: mm: ss
270	TotalTrade		int	The total number of transactions. Of both transactions, except the Cancel command PT
250	TotalStock		int	Total trading securities during the day (both GD. Only valid after the close of the market. Before that time the value is always zero.)
251	numSymbolAdvances		int	The number of stocks rising in price (order matching, even batch)
252	numSymbolNochange		int	No stock price changes (arthritis, even batch command)
253	numSymbolDeclines		int	Discount stock (joints, even batch command)
17	DateNo		int	The second trading day
220	totalNormalTradedQttyRd		int	Odd lot trading volume
221	totalNormalTradedValueRd		int	The total value of the transaction batch numbers
210	totalNormalTradedQttyOd		int	Odd-lot transactions, KL
211	totalNormalTradedValueOd		int	Odd-lot transactions worth KL
240	totalPTTradedQtty		int	KL trading agreement
241	totalPTTradedValue		int	KL transaction value deal
341	MarketCode		string	Market code

## 1.7 Message AutionMatch

This is the msg in the joint interim price determine will send the trading members.

Tag	Field Name	Value	Data Type	Note
8	BeginString	HNX. TDS. 1		Version information specified by the HOSE
9	BodyLength			The length of the message. Not the tag 8.9
35	MsgType	EP		Type of message
49	SenderCompID			Sender ID. If the message sent by the HOSE, then the value is the "HOSE"
52	SendingTime			Send time in UTC (also known as GMT) in format yyyyMMdd- HH: mm: ss
33	ActionType		string	Types of joints
55	Symbol		string	Stock code
31	Price		int	Price match (recurring)
32	Otty		int	Joint volume (periodical)

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## 1.8 Message ETF\_NET\_VALUE

This is the message the information to calculate the net assets of the ETF. Note the HNX no NET VALUE for all ETF. Only calculated for the ETF issuers thanks to HNX computer households. The calculated frequency of this message's data is a minimum of 15 seconds/times.

Tag	Field Name	Value	Data Type	Note
8	BeginString	HNX. TDS. 1		Version information specified by the HOSE
9	BodyLength			The length of the message. Not the tag 8.9
35	MsgType	IV		Type of message
49	SenderCompID			Sender ID. If the message sent by the HOSE, then the value is the "HOSE"
52	SendingTime			Send time in UTC (also known as GMT) in format yyyyMMdd- HH: mm: ss
56	CODE		string	ETF Code
57	TIME		string	Computational time, save the mini came second. UTC in the format yyyyMMdd-HH: mm: ss
58	INAV		Double	Net asset value is accurate to 6 number after the comma.

## 1.9 Message ETF\_TRACKING\_ERROR

Message value information TE (Tracking Error) ETF's. Note HNXkhông computer TRACKING ERROR for all ETF. Only calculated for the ETF issuers thanks to HNX computer households. The data of the message are counted 1 Tuan time/time after the end of the last trading day of the week and be pushed out on the first trading day of the next week.

Tag	Field Name	Value	Data Type	Note
8	BeginString	HNX. TDS. 1		Version information specified by the HOSE
9	BodyLength			The length of the message. Not the tag 8.9
35	MsgType	TE		Type of message
49	SenderCompID			Sender ID. If the message sent by the HOSE, then the value is the "HOSE"
52	SendingTime			Send time in UTC (also known as GMT) in format yyyyMMdd-HH: mm: ss
56	CODE		string	ETF Code
59	WEEK		int	Weeks made calculations TE (ascending from 1)
60	DATE		string	Date format yyyyMMdd. calculations.
61	TE_VALUE		Double	TE values. Accurate to 6 number after the comma.

#### 1.10 Message DerivativesInfo

Send details about stock derivatives for market members.

Tag	Field Name	Value	Data Type	Description
8	BeginString	HNX. TDS. 1		Version information specified by the HOSE
9	BodyLength			The length of the message. Not the tag 8.9
35	MsgType	DI		Type of message
49	SenderCompID			Sender ID. If the message sent by the HOSE, then the value is the "HOSE"
52	SendingTime			Send time in UTC (also known as GMT) in format yyyyMMdd-HH: mm: ss
55	Symbol		string	Stock code PS
15	SymbolID		decimal	Stock ID PS
800	Underlying		String	Property code base
425	BoardCode		String	The code table of stock PS
336	TradingSessionID		String	Session code
340	TradeSesStatus		String	The transaction status of the session
326	SecurityTradingStatus		String	Stock status
327	ListingStatus		String	Stock status
				Stock type

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167	SecurityType	String	
801	OpenInterest	decimal	Open volume OI (Open Interest) The end of the day worth
8011	OpenInterestChange	decimal	OI change (%) The end of the day worth
802	FirstTradingDate	date	First trading day
803	LastTradingDate	date	Last trading day
132	BestBidPrice	decimal	The price of the best order of matching EDUCATION
1321	BestBidQtty	decimal	The volume purchased GD's best match of commands
133	BestOfferPrice	decimal	Reviews latest GD's best selling order matching
1331	BestOfferQtty	decimal	Best selling volume set of matching EDUCATION
134	TotalBidQtty	decimal	The total purchase order matching CAT's KL
135	TotalOfferQtty	decimal	The total sale of matching EDUCATION place KL
260	BasicPrice	decimal	Reference price
333	FloorPrice	decimal	Price floor
332	CeilingPrice	decimal	Price ceiling
31	MatchPrice	decimal	The closest match of the GD price matching
32	MatchQtty	decimal	The most recent match of commands joints GD
137	OpenPrice	decimal	Open price
138	PriorOpenPrice	decimal	Open price of previous GD day
804	OpenQtty	decimal	Matching volume open
139	ClosePrice	decimal	Closing price
140	PriorClosePrice	decimal	The closing price of the previous GD day
805	CloseQtty	decimal	The volume of the closed order matching
387	TotalVolumeTraded	decimal	The total of transactions matching the GD KL and agreement
3871	TotalValueTraded	decimal	The total transaction value of GD and order matching
388	Tradingdate	date	Current transaction date in format yyyyMMdd
399	Time	String	Time in the format HH: mm: ss
400	TradingUnit	number	The minimum trading unit
17	DateNo	number	Second session (since the first trading day)
255	CurrentPrice	decimal	Price match expected of GD's recurring order matching
2551	CurrentQtty	decimal	Joint volume of expected periodic session's command joints GD
266	HighestPrice	decimal	Reviews GD's highest performing continuous order matching
2661	LowestPrice	decimal	The price of the lowest performing of continuous order matching EDUCATION
310	MatchValue	decimal	The closest matching values of matching EDUCATION
320	OfferCount	decimal	The total number of sales orders matching the GD
321	BidCount	decimal	The total number of purchase order matching EDUCATION
391	NM_TotalTradedQtty	decimal	The total trading volume of matching EDUCATION
392	NM_TotalTradedValue	decimal	The total transaction value of GD volume
393	PT_MatchQtty	decimal	The most recent volume of transactions
3931	PT_MatchPrice	decimal	The most recent implementation of the price of the transaction agreement

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394	PT_TotalTradedQtty		decimal	The total volume of transactions
3941	PT_TotalTradedValue		decimal	The total value of the transaction agreement
814	NM _ BuyForeignQtty	(	decimal	The total volume of their joint purchase order matching GD NĐTNN
815	PT _ BuyForeignQtty		decimal	The total volume of purchase agreement of NĐTNN CAT's joints
397	BuyForeignQtty		decimal	The total purchase volume of joints NĐT NN. Apply for matching EDUCATION and agreement
8141	NM_BuyForeignValue		decimal	The total value of their joint purchase order matching GD NĐTNN
8151	PT_BuyForeignValue		decimal	The total value of purchase agreement of NĐTNN CAT's joints
3971	BuyForeignValue		decimal	The total value of the purchase of the joint NĐTNN. Apply for matching EDUCATION and agreement
816	NM_SellForeignQtty		decimal	The total sales volume of the joint command of the NĐTNN joints GD
817	PT_SellForeignQtty		decimal	The total sales volume of the joint agreement of the GD NĐTNN
398	SellForeignQtty		decimal	The total sales volume of joints NĐT NN. Apply for matching EDUCATION and agreement
8161	NM_SellForeignValue		decimal	The total value of the sale of their joint command joints GD NĐTNN
8171	PT_SellForeignValue		decimal	The total sale value of their joint agreement the GD NĐTNN
3981	SellForeignValue		decimal	The total sales value of NĐTNN joints. Apply for matching EDUCATION and agreement