

**BISTECH DATA DISSEMINATION SYSTEM**  
**TIP Instrument State Information Message**  
**Processing Logic**

**(StateChange -'s' Type- Message)**

## 1. Intent of Document

This document gives information about instrument state message and its state level according to "SI" field. With state level information, instrument states can be interpreted in market or orderbook level.

## 2. General Rules

- Markets get state messages which include just "SI1" field.
- Instruments can get state messages which include both "SI1" & "SI2" fields (One state message can just only have one "SI" field).
- If an instrument gets a "SI1" included state message then this instrument will be affected from its market's state changes after that message.
- If an instrument gets a "SI2" included state message then this instrument will not be affected from its market state changes until it gets a state message with "SI1" field (Market state changes does not affect this instrument if its state level equals to 2).
- State messages that includes Ms99 field means that vendors must clear all instrument status and state levels under that market and recreate new states and state levels with messages that comes after this message. When a market gets a state which does not include "Ms99" than this means market reset operation ended.

Ex:

s;i288;s1;t081456.648;Ms99;SI1; [MSPOT] <- State Reset

s;i4110;s1;t081456.649;Ms3;SI2; [ISIEM.E] <- Instrument that doesn't run on market level in that market

s;i288;s1;t081456.650;Ms2;SI1; [MSPOT] <- State reset ends.

## 3. Market / Orderbook Level Messages

Market level messages can be sent to markets or instruments. "SI1" field in state messages refers that identification.

Ex:

1- s;i288;s1;t081456.648;Ms2;SI1; [MSPOT] <- Market level message for a market

2- s;i4110;s1;t081456.649;Ms3;SI1; [ISIEM.E] <- Market level message for an instrument

If an instrument gets a market level state message, this means instrument must obey market states. (Vendors must set instruments' status under that market to new status. There will not be any other state message that will be sent for instruments under that market which runs on market level).

Ex:

1- s;i288;s1;t081456.648;Ms2;SI1; [MSPOT] <- Market level message for market

2- s;i1216;s1;t081456.653;Ms3;SI2; [YESIL.E] <- Orderbook level message for an instrument

3- s;i1216;s1;t081456.655;Ms2;SI1; [YESIL.E] <- Market level message for an instrument

In this example firstly YESIL.E runs on orderbook level with message #2. But with message #3 its state level changed from orderbook level to market level. After that point, state changes of market of that instrument affect that instrument. There will be no state message to be sent especially for this instrument. It is possible for an instrument not to get any state message until the end of session. This means, state changes of the market of that instrument affect that instrument.

An instrument can get a state change message with “SI2” field at any time in a session. At that point state change messages for the market of that instrument do not affect that instrument.

Ex:

- 1- s;i288;s1;t081456.648;Ms2;SI1; [MSPOT] <- Market gets a market level state message
- 2- s;i1216;s1;t081456.653;Ms3;SI2; [YESIL.E] <- Instrument gets an orderbook level state change message

In the example above, YESIL.E will not be affected by its market’s state messages after message #2.

Ex:

- 1- s;i288;s1;t081456.648;Ms2;SI1; [MSPOT] <- Market level message for a market
- 2- s;i1216;s1;t081456.653;Ms3;SI2; [YESIL.E] <- Orderbook level message for an instrument
- 3- s;i288;s1;t081456.648;Ms4;SI1; [MSPOT] <- Market level message for a market

In the example above, message #3 changes market state to “4” but this will not affect YESIL.E and its state will stay at “3” because its state level set to orderbook level with message #2.

If YESIL.E gets a state change message with “SI1” field, this means its state level changes to market level and market messages will affect it.

Ex:

- 1- s;i288;s1;t081456.648;Ms2;SI1; [MSPOT] <- MSPOT market gets a market level message
- 2- s;i1216;s1;t081456.653;Ms3;SI2; [YESIL.E] <- YESIL.E state level set to orderbook level, so market messages will not affect it after that point.
- 3- s;i288;s1;t081456.660;Ms4;SI1; [MSPOT] <- MSPOT market goes to state 4. But this will not affect YESIL.E
- 4- s;i1216;s1;t081456.675;Ms4;SI1; [YESIL.E] <- YESIL.E gets market level message. No longer orderbook level is effective, market level messages are effective.
- 5- s;i288;s1;t081456.680;Ms2;SI1; [MSPOT] <- MSPOT market gets market level message.

In this example; with message #2, YESIL.E leaves market level and follows the orderbook level and with message #4 again it returns following market level. Because of message #5 its state must be set to “2” by data vendors because market level is effective on that instrument.

Sending the status information at start of day:

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s;i278;s1;t080741.875;Ms99;SI1; [MSPOT] ← state reset sequence starts for MSPOT
s;i262;s1;t080741.875;Ms99;SI1; [PRMKT]
s;i270;s1;t080741.875;Ms99;SI1; [PMOSA]
s;i2014;s1;t080741.938;Ms2;SI2; [YONGA.E]
s;i1230;s1;t080741.938;Ms3;SI2; [YESIL.E]
s;i1272;s1;t080741.946;Ms2;SI2; [YBTAS.E]
s;i724;s1;t080741.946;Ms5;SI2; [UZERB.E]
s;i1670;s1;t080741.949;Ms2;SI2; [TRNSK.E]
s;i1480;s1;t080741.953;Ms2;SI2; [TCHOL.E]
s;i698;s1;t080741.953;Ms3;SI2; [SODSN.E]
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s;i278;s1;t080741.875;Ms2;SI1; [MSPOT] ← state reset sequence ends for MSPOT  
s;i262;s1;t080741.875;Ms2;SI1; [PRMKT]  
s;i270;s1;t080741.875;Ms2;SI1; [PMOSA]

In the example above with state messages that are sent from data dissemination system, YONGA.E, YESIL.E, YBTAS.E, UZERB.E, TRNSK.E, TCHOL.E, SODSN.E state level change from market level to orderbook level and with this information these instruments will get state message individually (until a state message with a field “SI1” for that instruments). The state of the other instruments under that market (MSPOT) must be set to same state as MSPOT state. And they will not get extra state messages for their state. Markets can get state 99 (Ms99) message at the start of the day or intraday. At such a situation, vendors must clear and then recreate the status of the markets and instruments from the beginning. For example if an instrument previously got a state message with “SI2” field, after state message which includes Ms99 field it must return to follow the market level. If it gets a state message with “SI2” field again in state reset sequence, then its state level must change to orderbook level.

Example state message flow with “SI2” field:

s;i278;s1;t145038.682;Ms99;SI1; [MSPOT] <- Market state reset sequence start.  
s;i2012;s1;t145038.842;Ms4;SI2; [AKSA.E] <- State of AKSA.E is changed to opening session (Left market message level).  
s;i278;s1;t145512.867;Ms4;SI1; [MSPOT] <- Market state reset ends. Market goes to opening session (AKSA.E has already in opening session).  
s;i278;s1;t145737.259;Ms3;SI1; [MSPOT] <- Market state changed to uncrossing (AKSA.E is still in opening session ).  
s;i278;s1;t145812.867;Ms2;SI1; [MSPOT] <- Market state changed to continuous session (AKSA.E is still in opening session).  
s;i2012;s1;t145846.259;Ms10;SI2; [AKSA.E] <- AKSA.E suspended.  
s;i278;s1;t145937.259;Ms5;SI1; [MSPOT] <- Market state changed to closing session.  
s;i2012;s1;t145938.842;Ms5;SI1; [AKSA.E] <- AKSA.E’s state changed to closing session and state level changed to market level. (SI=1)  
s;i278;s1;t150037.259;Ms3;SI1; [MSPOT] <- Market state changed to uncrossing (AKSA.E’s state must be changed from closing session to uncrossing by vendor. AKSA.E will not get any other message because its state level changed to market level with previous message, “s;i2012;s1;t145038.842;Ms5;SI1; [AKSA.E] “).  
s;i278;s1;t150137.259;Ms1;SI1; [MSPOT] <- Market closed ( AKSA.E is also closed with market. Vendors must close this instrument).

**Note:** For all abbreviations & further information please look at the TIP Protocol Technical Specification document available at <http://www.borsaistanbul.com/en/nasdaqsupport/technical-documents>.