National Stock Exchange of India Limited

Circular

Department: MEMBER SERVICE DEPARTMENT	
Download Ref No: NSE/MSD/57151	Date: June 16, 2023
Circular Ref. No: 36/2023	

All Members,

Simulated Environment **–** Consolidated Circular

Exchange periodically consolidates circulars issued by the department over the period to provide one single document to refer for various policy and operational matters.

Exchange had issued simulated environment consolidated circular dated July 03, 2020, which was compilation of earlier consolidation and relevant circulars issued by Exchange from April 01, 2019 to March 31, 2020.

Subsequently, various circulars were issued by the Exchange over the period of time. In the view of same, this Consolidated circular is prepared which is a compilation of subsequent circulars related to Simulated Environment in the Capital Market (CM), Futures & Options (FO), Currency Derivatives (CD) and Commodity Derivatives (CO) Segments of the Exchange issued during the period April 01, 2020 to March 31, 2023.

In this regards, members may please note the following:

A) The timings for the daily simulated trading sessions in the CM, FO, CD and CO segment are as follows:

For CM Segment:

Session	Start Time	End Time
Pre Open	17:30 hrs.	17:38 hrs.*
Normal Market	17:45 hrs.	22:00 hrs.#

* Random Closure in last one minute

For FO, CD and CO segments:

Session	Timings
Market open time	17:30 hrs.
Market close time	22:00 hrs.#
Collateral value set up cut off time	22:15 hrs.#
Trade modification end time/Give up approval end time	22:15 hrs.#

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#Exchange support through helpdesk (call / emails) for the environment shall be available only upto 7:30 PM on regular trading days.

B) Members desirous of participating in the simulated environment shall be governed by the various circulars / communications / instructions / directions issued by the Exchange from time to time and such member shall remain compliant in this regard. Any non-compliance shall invite disciplinary action by the Exchange which will be initiated in accordance with the applicable Exchange Byelaws, Rules and Regulations.

C) The following operational instructions are to be noted and acted upon:
- Annexure 1: Important Instructions
- Annexure 2: Simulated Environment configuration
- Annexure 3: Member Reports.

D) No information has been rescinded for this consolidation, however, in future for any rescinded information, members may note the below:

Notwithstanding such rescission

a. Anything done or any action taken or purported to have been done or contemplated under the rescinded guidelines before the commencement of this Master Circular shall be deemed to have been done or taken or commenced or contemplated under the corresponding   provisions of the Master Circular or rescinded guidelines whichever is applicable.
b. The previous operation of the rescinded guidelines or anything duly done or suffered thereunder, any right, privilege, obligation or liability acquired, accrued or incurred under the rescinded guidelines, any penalty, incurred in respect of any violation committed against the rescinded guidelines, or any investigation, legal proceeding or remedy in respect of any such right, privilege, obligation, liability, penalty as aforesaid, shall remain unaffected as if the rescinded guidelines have never been rescinded.

For and on behalf of
National Stock Exchange of India Limited

Khushal Shah
Associate Vice President

Toll Free No	Email id
1800-266-0050 (Option 1)	msm@nse.co.in

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Annexure 1

Important instructions

1. The Simulated Environment shall be available on all regular live trading days.
2. All members eligible to trade in respective segment in live market shall be enabled for the daily simulated trading sessions with their existing user ids, IP and Box Id mapping i.e. members can use their production network connectivity itself for participating in the Simulated Environment.
3. Simulated Environment is available to all members in CM, FO, CD and CO segments from Non-colocation connectivity.
4. Members can access only CM, FO and CD segments Simulated Environment from colocation facility too. Members shall not be allowed to connect to the Commodity Segment Simulated environment from colocation facility.
5. Members may kindly note that simulated environment is a replica of the Live environment only in terms of functionality and not in terms of scale, capacity and infrastructure. Accordingly, it should be used for functionality testing and not for performance testing.
6. The Member masters / User id Masters and Master files i.e. Security.txt / contract.txt / participant.txt / MTBT stream info files etc. of the respective segments are replicated from the live environment on a periodic basis in the simulated environment. The required master files for participating in the simulated environment can be downloaded from the following link: https://ims.connect2nsccl.com/MemberPortal/view/testMrktHome.jsp **or** https://enit.nseindia.com/MemberPortal/view/testMrktHome.jsp . The date mentioned as part of the master files name in the respective segment, shall indicate the EOD that has been replicated.
7. Members may note that post successful mocks of major changes / versions releases and its subsequent roll out in Live Market Environment, the Exchange shall endeavour to replicate the same **in Simulated Market Environment in less than 2 weeks' time. The Exchange shall provide information** of such updates, as and when they take place, through Member Portal. In order to know the last updated date of replication of data from Live market environment to Simulated environment, members may refer to the link as provided below :-
    https://ims.connect2nsccl.com/MemberPortal/view/testMrktHome.jsp
8. The default password to login shall be same as applicable for live market as mentioned below:

Segment	Default Password
Capital Market (CM)	Neat@CM1
Futures & Options (FO)	Neat@FO1
Currency Derivatives (CD)	Neat@CD1
Commodity Derivatives (CO)	Neat@CO1

9. Members are required to set their branch / user limits from their corporate manager terminal in the respective segments, prior to placing orders in the simulated environment.

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10. Refer to Exchange circular download ref no NSE/MSD/44949 dated July 08, 2020 for "important guidelines and scope of Exchange-provided technical support".

11. Members may test their NNF application in simulated environment once development is complete and has been successfully tested in the Exchange test market environment. Any API related queries should be tested and raised in the test market environment only and not in the Simulated environment.

12. In case of any queries or assistance please call Toll Free no: 1800 266 0050 (Option 1) or e-mail on msm@nse.co.in between 8:00 AM to 7:30 PM on all trading days.

    a. While sending mail pertaining to simulated environment, members are advised to prefix **"Simulated Environment"** in the subject line of the mail enabling us to assist you better.

    b. Members are requested to send requests via email pertaining to following activities with the details of User ID and segment for Exchange action.
        i. Pro enablement
        ii. CTCL conversion
        iii. Password Reset for corporate manger user id
        iv. Unlocking of corporate manager user id

    c. In case of any technical queries w.r.t. Simulated Environment, members are required to send email with the following minimum details for Exchange analysis, in absence of which the Exchange may not be able to assist you for early resolution of your query.
        i. Member Code, Member Name
        ii. Segment, User ID, BOX ID and IP
        iii. Details of login protocol used i.e. NEAT Adaptor / Direct Connection
        iv. Query in brief along with details of exchange order no., trade no., error code, reason codes, screenshots of error etc.
        v. Contact details i.e. Name and contact no of the concerned person with whom our technical team can connect in case of any discussion required on the said query.
        vi. Please note that since the queries are technical in nature and will require time for analysis, the Exchange SLA shall be atleast 7 working days in such cases. The expected timelines for resolution shall be communicated to the members accordingly.

13. Trades resulting from these sessions shall not attract any obligation in terms of funds and / or securities pay-in and/or pay-out. Members are requested not to transfer any data files for this session.

14. Exchange also has a facility to provide liquidity for participating members to test their Non-NEAT Frontend (NNF) applications. The facility is available for Capital Market (CM), Futures & Options (FO), Currency Derivatives (CD) and Commodity Derivatives (CO) segments of the Exchange from 6:00 PM to 8:00 PM on all trading days when Simulated Environment is available.

Disclaimers:

1. The Exchange will endeavour to provide the Simulated Environment on a best efforts basis and makes no representations or warranty, express or implied, with regard to the advantages, benefits,

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usefulness, or accuracy of the same or the advantages accruing by subscribing to it. The Exchange shall not be responsible, liable or shall guarantee the results for the functionality and / or performance testing and shall in no event be liable or responsible for any direct or indirect claims/ damages or the like arising out of the usage / availment / subscription of the sessions.

2. The Exchange shall promptly address any defects/problems in the environment related systems as reported to it but does not warrant that the environment shall be uninterrupted or error free.

Annexure 2

Simulated Environment Configuration

Parameters for Interactive Connectivity:

Segment	Gateway Router		Gateway IPs Subnet ranges		
	IP Address	Port	Network	Subnet Mask	Port
Capital Market	172.19.245.108	10273	172.19.245.0	255.255.255.0	10271 & 10267
Futures & Options	172.19.245.108	10272	172.19.245.0	255.255.255.0	10273 & 10255
Currency Derivatives	172.19.245.108	10271	172.19.245.0	255.255.255.0	10247 & 10254
Commodity Derivatives	172.19.245.108	10274	172.19.245.0	255.255.255.0	10271 & 10272

*If participating with NEAT/NEAT Plus application, p**lease select 'DEV'** radio button in the Host configuration **option of "NEAT Adaptor" and configure the above parameters to participate in the simulated environment.***

Parameters for Broadcast:

A. Normal Market Data Broadcast: Price volume (5 depth 1 second refresh), other related data, master updates, market open/close status message broadcast etc.

Normal Market Data Broadcast Simulated			
Segment	Broadcast type	Multicast IP Address	Broadcast Port
CM	Fast	239.100.39.43	10243
FO	Fast	239.100.39.16	10216
FO	Fast	239.100.39.30	10230
FO	Slow	239.100.39.15	10215
FO	Slow	239.100.39.29	10229
CD	Fast	239.100.39.57	10257
CD	Slow	239.100.39.31	10231
CO	-	239.100.39.10	10241

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B. Limit Price Protection Range (LPP) Broadcast Parameters:

Limit Price Protection Range is applicable only in FO segment and Exchange provides related broadcast for NNF users as below:

Limit Price Protection Range (LPP) Parameters -Simulated				
	Source 1		Source 2	
Segment	Multicast IP Address	Broadcast Port	Multicast IP Address	Broadcast Port
FO	239.100.39.38	10238	239.100.39.39	10239

Tick by Tick order and trade data via Multicast (MTBT)

1. Segment wise details of Multicast IP address and port are as below:

MTBT Parameters - Simulated					
Segment	Stream ID	Source 1		Source 2 (Delayed Feed)	
		Multicast IP Address	Multicast Port	Multicast IP Address	Multicast Port
CM	1	239.100.39.92	10292	239.100.39.93	10293
CM	2	239.100.39.92	10282	239.100.39.93	10283
CM	3	239.100.39.181	10181	239.100.39.182	10182
CM	4	239.100.39.183	10183	239.100.39.184	10184
FO	1	239.100.39.66	10266	239.100.39.67	10267
FO	2	239.100.39.68	10268	239.100.39.69	10269
CD	1	239.100.39.63	10263	239.100.39.64	10264
CO	1	239.100.39.162	10162	239.100.39.163	10163

2. Recovery of tick by tick data:

Multicast TBT Recovery details - Simulated		
Segment	IP Address	Port
CM	172.19.245.36	10287
FO	172.19.245.36	10283
CD	172.19.245.36	10281
CO	172.19.245.36	10282

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Annexure 3

Members who have participated in the Simulated Environment can download the summarized participation reports of their orders and trades for Capital Market (CM), Futures & Options (FO), Currency Derivatives (CD) and Commodity Derivatives (CO) Segments of the Exchange.

The reports shall be provided on the same day post closure of markets in Simulated Environment. Reports shall be available only on days when a member has participated.

A. Files nomenclature and Extranet Path for order report

Segment	File Name	File Path
CM	<tm_code>_cm_ddmmyyyy_sim_ordrpt.csv	/<Member Code>folder/Simulated_Market_Reports
FO	<tm_code>_fo_ddmmyyyy_sim_ordrpt.csv	/faoftp/F<Member Code>folder/Simulated_Market_Reports
CD	<tm_code>_x_ddmmyyyy_sim_ordrpt.csv	/cdsftp/X<Member Code>folder/Simulated_Market_Reports
CO	<tm_code>_co_ddmmyyyy_sim_ordrpt.csv	/comtftp/O<Member Code>folder/Simulated_Market_Reports

B. Files structure format for order report

Report Header for CM segment	
Field Name	Field Type
Date	dd-mm-yyyy
TM Code	Num(5)
User ID	Num(5)
Series	Char (2)
Symbol	Char (10)
Count of Orders entered	Num
Count of Orders Modified	Num
Count of orders cancelled	Num

Report Header for FO, CD and COM segments	
Field Name	Field Type
Date	dd-mm-yyyy
TM Code	Num(5)
User ID	Num(5)
Instrument Type	Num(2)
Symbol	Char (10)
Option Type	Char (2)
Strike Price	Num (10)
Expiry Date	dd-mm-yyyy
Count of Orders entered	Num

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Count of Orders Modified	Num
Count of orders cancelled	Num

C) Files nomenclature and Extranet Path for trade report

Segment	File Nomenclature	File Path
CM	<tm_code>_cm_ddmmyyyy_sim_trdrpt.csv	/<Member Code>folder/Simulated_Market_Reports
FO	<tm_code>_fo_ddmmyyyy_sim_trdrpt.csv	/faoftp/F<Member Code>folder/Simulated_Market_Reports
CD	<tm_code>_x_ddmmyyyy_sim_trdrpt.csv	/cdsftp/X<Member Code>folder/Simulated_Market_Reports
CO	<tm_code>_co_ddmmyyyy_sim_trdrpt.csv	/comtftp/O<Member Code>folder /Simulated_Market_Reports

D) Files structure format for trade report

Report Header for CM segment	
Field Name	Field Type
Date	dd-mm-yyyy
TM Code	Num(5)
User ID	Num(5)
Series	Char(2)
Symbol	Char(10)
Total Count of Trades	Num
Total Quantity	Num

Report Header for FO, CD and CO segments	
Field Name	Field Type
Date	dd-mm-yyyy
TM Code	Num(5)
User ID	Num(5)
Instrument Type	Num(2)
Symbol	Char(10)
Option Type	Char(2)
Strike Price	Num(10)
Expiry date	dd-mm-yyyy
Total Count of Trades	Num
Total Quantity	Num

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E) Files nomenclature and Extranet Path for algo-id report

Segment	File Name	File Path
CM	<tm_code>_cm_ddmmyyyy_sim_ord_algoidrpt.csv	/<Member Code>folder/Simulated_Market_Reports
FO	<tm_code>_fo_ddmmyyyy_sim_ord_algoidrpt.csv	/faoftp/F<Member Code>folder/Simulated_Market_Reports
CD	<tm_code>_x_ddmmyyyy_sim_ord_algoidrpt.csv	/cdsftp/X<Member Code>folder/Simulated_Market_Reports
CO	<tm_code>_co_ddmmyyyy_sim_ord_algoidrpt.csv	/comtftp/O<Member Code>folder/Simulated_Market_Reports

F) File format for Algo-id report

Report Header for CM, FO, CD and CO segments	
Field Name	Field Type
Date	dd-mm-yyyy
TM Code	Num(5)
User ID	Num(5)
Algo Id	Num