

# NASDAQ OMX Data Feeds – U.S. Early Close Transmission Schedule

## Contents

NASDAQ Equity Data Feeds .....	2
TotalView-ITCH (All versions) .....	2
TotalView–Aggregated <sup>SM</sup> and NOIView .....	2
NASDAQ Level 2 <sup>SM</sup> and NASDAQ Best Bid and Offer (QBBO) .....	2
NASDAQ Last Sale (NLS) .....	3
NASDAQ Market Velocity and Forces .....	3
NASDAQ Pathfinders .....	3
NASDAQ Net Order Imbalance Snapshot (NOIS) .....	4
BX Equity Data Feeds .....	5
BX TotalView-ITCH (All Versions) .....	5
BX Best Bid and Offer (BX BBO) .....	5
BX Last Sale (BLS) .....	5
PSX Equity Data Feeds .....	6
PSX TotalView-ITCH (All Versions) .....	6
PSX Best Bid and Offer (PSX BBO) .....	6
PSX Last Sale (PLS) .....	6
NASDAQ OMX Information Data Feeds .....	7
NLS Plus .....	7
Mutual Fund Dissemination Service <sup>SM</sup> (MFDS <sup>SM</sup> ) .....	7
NASDAQ OMX Global Index Dissemination Service (GIDS) – U.S. Early Close .....	7
NASDAQ OMX Global Index Dissemination Service (GIDS) – U.S. Market Holidays .....	8
RussellTick <sup>SM</sup> .....	8
European Last Sale (ELS) .....	8
NASDAQ Options Data Feeds .....	9
NASDAQ ITCH To Trade Options (ITTO) .....	9
Best of NASDAQ Options (BONO) .....	9
NASDAQ OMX PHLX Data Feeds .....	10
Top of PHLX Options (TOPO) and PHLX Orders .....	10
NASDAQ OMX Futures Exchange (NFX) Data Feed .....	10
NFX Futures Feed .....	10

## NASDAQ Equity Data Feeds

### TotalView-ITCH (All versions)

Adjusted Time (ET)	Message Transmission	Message Type
12:50 p.m. to 1:00 p.m.	Dissemination of Net Order Imbalance Indicator (NOII) messages for NASDAQ Closing Cross	I (Cross Type=C)
1:00 p.m.	End of Market Hours control message	S (Event code=M)
1:00 p.m.+	Cross Trade messages for NASDAQ Closing Cross	M (Cross Type=C)
5:00 p.m.	End of System Hours control message	S (Event code=E)
Between 5:00 p.m. and 6:00 p.m.	End of Messages control message	S (Event code=C)

### TotalView-Aggregated<sup>SM</sup> and NOIView

Adjusted Time (ET)	Message Transmission	Message Type
12:50 p.m. to 1:00 p.m.	Dissemination of Net Order Imbalance Indicator (NOII) messages for NASDAQ Closing Cross	I (Cross Type=C)
1:00 p.m.	End of Market Hours control message	S (Event code=M)
5:00 p.m.	End of System Hours control message	S (Event code=E)
Between 5:00 p.m. and 6:00 p.m.	End of Messages control message	S (Event code=C)

### NASDAQ Level 2<sup>SM</sup> and NASDAQ Best Bid and Offer (QBBO)

Adjusted Time (ET)	Message Transmission	Message Type
1:00 p.m.	End of Market Hours control message	S (Event code=M)
5:00 p.m.	End of System Hours control message	S (Event code=E)
Between 5:00 p.m. and 6:00 p.m.	End of Messages control message	S (Event code=C)

**NASDAQ Last Sale (NLS)**

Adjusted Time (ET)	Message Transmission	Message Type
1:00 p.m.	End of Market Hours control message	S (Event code=M)
5:00 p.m.	End of System Hours control message	S (Event code=E)
Between 5:00 p.m. and 6:00 p.m.	End of Messages control message	S (Event code=C)

Note: On early close days, trade transactions that occur between 1 p.m. and 5 p.m., ET, should be modified with a .T or .U sale condition – level 4 code. .T and .U transactions should be excluded from closing price calculations.

**NASDAQ Market Velocity and Forces**

Adjusted Time (ET)	Message Transmission	Message Type
1:00 p.m.	Final dissemination of Market Velocity and Forces messages	D
Between 5:00 p.m. and 6:00 p.m.	End of Day control message	S (Event code=E)

**NASDAQ Pathfinders**

Adjusted Time (ET)	Message Transmission	Message Type
1:00 p.m.	End of Market Hours control message	S (Event code=M)
1:01:10 p.m.	Final Pathfinders message interval	D
Between 5:00 p.m. and 6:00 p.m.	End of Messages control message	S (Event code=C)

**NASDAQ Net Order Imbalance Snapshot (NOIS)**

Adjusted Time (ET)	Message Transmission	Message Type
12:52 p.m. and 12:55 p.m.	Dissemination of Net Order Imbalance Snapshot (NOIS) messages for NASDAQ Closing Cross	I (Cross Type=C)
1:00 p.m.	End of Market Hours control message	S (Event code=M)
5:00 p.m.	End of System Hours control message	S (Event code=E)
Between 5:00 p.m. and 6:00 p.m.	End of Messages control message	S (Event code=C)

## BX Equity Data Feeds

### BX TotalView-ITCH (All Versions)

Adjusted Time (ET)	Message Transmission	Message Type
1:00 p.m.	End of Market Hours control message	S (Event code=M)
4:00 p.m.	End of System Hours control message	S (Event code=E)
Between 4:00 p.m. and 6:00 p.m.	End of Messages control message	S (Event code=C)

### BX Best Bid and Offer (BX BBO)

Adjusted Time (ET)	Message Transmission	Message Type
1:00 p.m.	End of Market Hours control message	S (Event code=M)
4:00 p.m.	End of System Hours control message	S (Event code=E)
Between 4:00 p.m. and 6:00 p.m.	End of Messages control message	S (Event code=C)

### BX Last Sale (BLS)

Adjusted Time (ET)	Message Transmission	Message Type
1:00 p.m.	End of Market Hours control message	S (Event code=M)
4:00 p.m.	End of System Hours control message	S (Event code=E)
Between 4:00 p.m. and 6:00 p.m.	End of Messages control message	S (Event code=C)

Note: On early close days, trade transactions that occur between 1 p.m. and 5 p.m., ET, should be modified with a .T or .U sale condition – level 4 code. .T and .U transactions should be excluded from closing price calculations.

## PSX Equity Data Feeds

### PSX TotalView-ITCH (All Versions)

Adjusted Time (ET)	Message Transmission	Message Type
1:00 p.m.	End of Market Hours control message	S (Event code=M)
2:00 p.m.	End of System Hours control message	S (Event code=E)
Between 2:00 p.m. and 6:00 p.m.	End of Messages control message	S (Event code=C)

### PSX Best Bid and Offer (PSX BBO)

Adjusted Time (ET)	Message Transmission	Message Type
1:00 p.m.	End of Market Hours control message	S (Event code=M)
2:00 p.m.	End of System Hours control message	S (Event code=E)
Between 2:00 p.m. and 6:00 p.m.	End of Messages control message	S (Event code=C)

### PSX Last Sale (PLS)

Adjusted Time (ET)	Message Transmission	Message Type
1:00 p.m.	End of Market Hours control message	S (Event code=M)
2:00 p.m.	End of System Hours control message	S (Event code=E)
Between 2:00 p.m. and 6:00 p.m.	End of Messages control message	S (Event code=C)

Note: On early close days, trade transactions that occur between 1 p.m. and 5 p.m., ET, should be modified with a .T or .U sale condition – level 4 code. .T and .U transactions should be excluded from closing price calculations.

## NASDAQ OMX Information Data Feeds

### NLS Plus

Adjusted Time (ET)	Message Transmission	Message Type
1:00 p.m.	End of Market Hours control message	S (Event code=M)
5:00 p.m.	End of Day Trade Summary	J
Between 5:00 p.m. and 6:00 p.m.	End of Messages control message	S (Event code=C)

Note: On early close days, trade transactions that occur between 1 p.m. and 5 p.m., ET, should be modified with a .T or .U sale condition – level 4 code. .T and .U transactions should be excluded from closing price calculations.

NLS Plus is closed on U.S. market holidays.

### Mutual Fund Dissemination Service<sup>SM</sup> (MFDS<sup>SM</sup>)

No change. MFDS will operate on a normal reporting schedule on U.S. early close days.

MFDS will be closed on U.S. market holidays.

### NASDAQ OMX Global Index Dissemination Service (GIDS) – U.S. Early Close

Adjusted Time (ET)	Message Transmission	Message Category	Message Type(s)
1:00 p.m.	U.S. Session Close control message	C	C
Through 2:16 p.m.	Tick Details – U.S. and Global Indexes	P	A
1:15 p.m.	Settlement Value – U.S. and Global Indexes	P	B
1:15 p.m. to 3:30 p.m.	Tick Details – NASDAQ-100 After Hours Indicator values	P	A
3:35 p.m.	End of NASDAQ Trade Reporting control message	C	X
2:30 p.m.	End of Day Summary Report	A	B
3:38 p.m.	End of Day control message	C	J
3:41 p.m.	End of Retransmission message	C	K
3:44p.m	End of Transmission control message	C	Z

**NASDAQ OMX Global Index Dissemination Service (GIDS) – U.S. Market Holidays**

Adjusted Time (ET)	Message Transmission	Message Category	Message Type(s)
1:00 p.m.	U.S. Session Close control message	C	C
1:15 p.m.	Settlement Value – Select Global Indexes	P	B
2:30 p.m.	End of Day Summary Report – Select Global Indexes	A	B
3:38 p.m.	End of Day control message	C	J
3:41 p.m.	End of Retransmission message	C	K
3:44p.m	End of Transmission control message	C	Z

Note: On U.S. market holidays, NASDAQ OMX will operate GIDS for the European and global indexes. On such holidays, real-time index data will be disseminated during the European market session only.

**RussellTick<sup>SM</sup>**

No change. Russell Tick will operate on a normal operational schedule on both early close days and U.S. market holidays.

**European Last Sale (ELS)**

No change. ELS is impacted by the market holiday schedule for OMX Nordic and Baltic markets only.

## NASDAQ Options Data Feeds

### NASDAQ ITCH To Trade Options (ITTO)

Adjusted Time (ET)	Message Transmission	Message Type
12:50 p.m. – 1:00 p.m.	Dissemination of Net Order Imbalance Indicator (NOII) messages for NASDAQ Options Market Closing Auction – Equity Options	I (Cross Type=C)
1:00 p.m.	Start of Normal Hours Closing Process control message	S (Event Code=N)
1:05 p.m. – 1:15 p.m.	Dissemination of Net Order Imbalance Indicator (NOII) messages for NASDAQ Options Market Closing Auction – Index/ETF Options	I (Cross Type=C)
1:15 p.m.	Start of Late Hours Closing Process control message	S (Event Code=L)
1:30 p.m.	End of System Hours control message	S (Event Code=E)
Approximately 1:35 p.m.	End of Messages control message	S (Event Code=C)

### Best of NASDAQ Options (BONO)

Adjusted Time (ET)	Message Transmission	Message Type
1:00 p.m.	Start of Normal Hours Closing Process control message	S (Event Code=N)
1:15 p.m.	Start of Late Hours Closing Process control message	S (Event Code=L)
1:30 p.m.	End of System Hours control message	S (Event Code=E)
Approximately 1:35 p.m.	End of Messages control message	S (Event Code=C)

## NASDAQ OMX PHLX Data Feeds

### Top of PHLX Options (TOPO) and PHLX Orders

Adjusted Time (ET)	Message Transmission	Message Type
1:00 p.m.	End of Normal Hours Processing control message	(Event Code=N)
1:15 p.m.	End of Late Hours Processing control message	(Event Code=L)
2:30 p.m.	End of System Hours control message	(Event Code=E)
2:35 p.m.	End of Messages control message	(Event Code=C)

## NASDAQ OMX Futures Exchange (NFX) Data Feed

### NFX Futures Feed

Adjusted Time (ET)	Message Transmission	Message Category	Message Type(s)
1:15 p.m.	End of quotation and trade data dissemination	B, T, E, H	Various
1:15 p.m. to 1:30 p.m.	Settlement values dissemination	Q	<space>
1:30 p.m.	Start of Summary control message	C	F
1:30 p.m. to 2:00 p.m.	Summary messages	J	<space>
2:00 p.m.	End of Summary control message	C	G
2:15 p.m.	End of Day control message	C	I