Global Index Data Service GIDS 2.0

Cloud Technical Specification

Version 1.0d February 2023

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Overview

Global Index Data Service (GIDS) is Nasdaq's real-time data feed that consolidates all 9,000+ Nasdaq indexes, as well as exchange-traded products (ETPs) valuation data and third-party partner data. The widespread distribution to over 600 global firms promotes capital performance transparency and education for investors, asset managers and the financial community worldwide.

About Us

Nasdaq Investment Intelligence equips investors with the tools to make informed decisions by providing innovative real-time and historical products designed to tap new data sets and meet new industry challenges. Nasdaq Data Cloud Services eliminates infrastructure and resource obstacles from collecting and storing large data sets, providing tools with industry adopted open standards to ingest and analyze market data and other financial information. To learn more about the company, technology solutions, and career opportunities, visit us on LinkedIn, on Twitter @Nasdaq, or at www.nasdaq.com.

Coverage

Nasdaq Global Index Data Service covers nearly 9,000 Nasdaq indexes, as well as third-party ETP valuation data and index data.

The GIDS data feed sends the following consolidated data messages for indexes and ETPs:

Indexes

- Real-time index levels
- Settlement values
- Currency spot values for select instruments
- Daily security components data for select indexes
- Start-of-Day and End-of-Day summary data

ETPs

- Intraday portfolio values (IPVs)
- Daily valuation information o NAV per share
  - Estimated cash per share
  - Estimated cash per creation unit
  - Total cash per creation unit
  - Total shares outstanding
- ETP directory message designed to provide the symbols of ETP valuations

Data Types

All numeric fields are signed big-endian (network byte order) binary encoded numbers. Numerics may be shorts (2 bytes), integers (4 bytes), or longs (8 bytes).

Numeric longs are used to represent floating point numbers. Nasdaq will identify the decimal point precision for the field with a notation of En, where n indicates the number of decimal places in the number. For example, the notation of E2 reflects that the field number has an implied precision of two decimal places and E11 has an implied precision of 11 decimal places. All alpha fields are left justified and padded on the right with spaces.

Dates are integer fields. When converted, dates are reported in YYYYMMDD format.

Message Formats

Event Messages

Timestamp

For bandwidth efficient reasons, Nasdaq will separate the timestamp into two pieces on GIDS 2.0:

Timestamp	Message	Notes
Seconds	Standalone message	The Timestamp – Seconds message will be disseminated for every second during which there is at least one payload message. For The Timestamp – Seconds message, Nasdaq will reflect the UTC (Universal Time, Coordinated), as stated by number of seconds since the Unix epoch (midnight, January 1, 1970).
Nanoseconds	Field within individual messages	The Timestamp – Nanoseconds will be disseminated at the message level to denote the number of nanoseconds that passed between the UTC time represented by the most recent Timestamp-Seconds message and the current payload message.

For the standalone Timestamp – Seconds message, the format is as follows:

Field	Name	Type	Notes
Type	msgType	String	T = Timestamp / Seconds
Second	second	Integer	The UTC (Universal Time, Coordinated) time, giving the number of seconds since the Unix epoch (midnight, January 1, 1970).

System Event

The System Event Message signals a data feed handler event. The format is as follows:

Field	Name	Type	Notes
Type	msgType	String	S = System Event
Timestamp	timeStamp	Integer	Reflects nanosecond portion of timestamp.
Event Code	event	String	Denotes the GIDS system event code. The standard GIDS system event codes are as follows: Code — Definition O — Start of Messages: Outside of time stamp messages, the Start of Messages is the first message sent in any trading day. S — Start of Day: The Start of Day signifies the beginning of the operational cycle for processing. E — End of Day: The End of Day signals the end of active message dissemination for the operational cycle. C — End of Messages: This is always the last message sent in any trading day The session-specific GIDS system event codes are as follows: Code — Definition Q — Session Open: This code is used to signal the start of the stated GIDS Index Schedule identified in the next field. M — Session Close: This code is used to signal the end of the stated GIDS Index Schedule identified in the next field.

Field	Name	Type	Notes
Schedule	schedule	String	Populated only for session-related event messages, otherwise this will be space filled. Refer to Appendix A for the current list of allowable Schedule codes.

Index Messages

Index Directory Message

This Index Directory Message will be used to relay instrument level or reference data for Nasdaq and Contributor API (CAPI) indexes. On GIDS-2.0, this message will be supported for all indexes, including total return indexes.

Field	Name	Type	Notes
Type	msgType	String	R = Index Directory message
Timestamp	timeStamp	Integer	The nanosecond portion of timestamp.
Instrument ID	instrumentID	String	The instrument identifier for the Index.
Dissemination Flag	disseminationFlag	String	Flag to indicate if the index detail messages will be disseminated via GIDS-2.0 for the Instrument ID during the current system date. The allowable values are: Code — Definition Y — Index Detail messages are being disseminated N — Index Detail messages are not being disseminated
Financial Product Type (FP Type)	fpType	String	The financial product code associated with the instrument ID. Refer to Appendix A for allowable values.
Brand	brand	String	The brand name for the Instrument ID. Refer to Appendix A for allowable values.
Series	series	String	The series identifier for the Instrument ID. Refer to Appendix A for allowable values.
Strategy	strategy	String	The index strategy for the Instrument ID in the directory message. Refer to Appendix A for allowable values.
Asset Type	assetType	String	The primary asset class for the Instrument ID. Refer to Appendix A for allowable values.
Market Cap Size	marketCapSize	String	The market capitalization size for the Instrument ID. Refer to Appendix A for allowable values.
Currency	currency	String	The ISO 4217 Currency Code for the Instrument ID.
Geography	geography	String	Denotes the Geography code associated with the Instrument ID in the directory message. Refer to Appendix A for allowable values.
Index Settlement Type	settlementType	String	Denotes the Nasdaq or CAPI Settlement Type associated with the Instrument ID in the directory message. This field will be populated for Index Settlement Symbols only. Refer to Appendix A for allowable values.
Index Calculation Method	calculationMethod	String	Denotes the Index Calculation Method code associated with the Instrument ID in the directory message. Refer to Appendix A for allowable values.
State	state	String	Denotes the current state associated with the Instrument ID in the directory message. Refer to Appendix A for allowable values.
Index Usage	indexUsage	String	Denotes the current usage code associated with the Instrument ID in the directory message. Refer to Appendix A for allowable values.
Schedule	schedule	String	Denotes the dissemination schedule associated with the Instrument ID in the directory message. Refer to Appendix A for allowable values.

Field	Name	Type	Notes
Frequency	frequency	String	Denotes the frequency code associated with the Instrument ID in the directory message. Refer to Appendix A for allowable values.
Number of Issue Participation Messages	numberOfIssueParticipation	Integer	Reflects the number of Issue Participation messages associated with the given Index Instrument ID. If the Issue Participation messages are not supported for Index Instrument ID, this field should be set to zero.
Base Value	baseValue	Long (E11)	Index value at inception.
Base Date	baseDate	Integer	Inception date of the index.
Instrument Name	InstrumentName	String	The Instrument Name or Index Name.

Issue Symbol Participation Message

The Issue Symbol Participation Message is used to relay the component securities for select Nasdaq indexes.

Field	Name	Type	Notes
Type	msgType	String	P = Issue Symbol Participation Message
Timestamp	timeStamp	Integer	The nanosecond portion of timestamp.
Instrument ID	instrumentID	String	The Instrument ID of the index of which the security is a component.
Issue Symbol	issueSymbol	String	The security trading symbol for the component security, as assigned by the Issue MIC.
Issue MIC	issueMIC	String	The ISO 10383 Market Identification Code (MIC) of the component security's primary
Issue Name	issueName	String	The issue name for the component security, as defined by the Issue MIC. Nasdaq reserves the right to abbreviate the name to not exceed the maximum field length.

Intraday Index Value (IIV) Message

The Intraday Index Value Message for a given instrument is disseminated at a defined frequency and schedule as indicated in the Issue Directory message.

Field	Name	Type	Notes
Type	msgType	String	I = Intraday Index Value Message
Timestamp	timeStamp	Integer	The nanosecond portion of timestamp.
Financial Product Type (FP Type)	fpType	String	The primary asset class for the Instrument ID. Refer to Appendix A for allowable values.
Brand	brand	String	The brand name for the Instrument ID. Refer to Appendix A for allowable values.
Series	series	String	The series identifier for the Instrument ID. Refer to Appendix A for allowable values.
Instrument ID	instrumentID	String	The instrument identifier for the index for which the tick value is being calculated and disseminated.
Tick Value	tickValue	Long (E11)	The current calculated tick value for instrument ID.
Tick Direction	tickDirection	String	The net change direction for the tick value (since the last tick update). The allowable values are: Code — Definition + — Positive or zero net change (net gain) - — Negative net change (net loss) Space — No net change calculated
Currency	currency	String	The ISO 4217 Currency Code for the Instrument ID.

Settlement Value Message

The Settlement Value Message is used to send the official settlement price and settlement session used to settle cash derivatives on financial products when they expire.

Field	Name	Type	Notes
Type	msgType	String	A = Settlement Value Message
Timestamp	timeStamp	Integer	The nanosecond portion of timestamp.
Financial Product Type (FP Type)	fpType	String	The primary asset class associated with the Instrument ID. Refer to Appendix A for allowable values.
Brand	brand	String	The brand name for the Instrument ID. Refer to Appendix A for allowable values.
Series	series	String	The series identifier for the Instrument ID. Refer to Appendix A for allowable values.
Instrument ID	instrumentID	String	The Instrument ID for the settlement index value.
Settlement Value	settlementValue	Long (E11)	The current calculated settlement value for the instrument ID.
Settlement Type	settlementType	String	The Settlement Type for the Instrument ID. Refer to Appendix A for allowable values.
Currency	currency	String	The ISO 4217 Currency Code for the Instrument ID.

Equities Summary Message

The Equities Summary Message relays the summary of the current trading day's activity for an equity index. A summary message will not be sent for indexes that have no activity for the trading day.

Field	Name	Type	Notes
Type	msgType	String	F = Equities Summary Message
Timestamp	timeStamp	Integer	Reflects the nanosecond portion of timestamp.
Financial Product Type (FP Type)	fpType	String	Denotes the primary asset class associated with the Instrument ID in the directory message. Refer to Appendix A for allowable values.
Brand	brand	String	Denotes the brand name associated with Instrument ID in the directory message. Refer to Appendix A for allowable values.
Series	series	String	Denotes the series identifier associated with the Instrument ID in the directory message. Refer to Appendix A for allowable values.
Instrument ID	instrumentID	String	Denotes the instrument identifier for the Index in the directory message.
Summary Type	summaryType	String	EOD = End of Day Summary SOD = Start of Day Summary PDA = Prior Day Summary Add PDC = Prior Day Summary Correction STL = Settlement Summary
SOD Value	sodValue	Long (E11)	Start of Day Value (prior day's closing price adjusted for corporate actions)
High	high	Long (E11)	calculated high value
Low	low	Long (E11)	calculated low value
EOD Value	eodValue	Long (E11)	end of day value
Net Change	netChange	Long (E11)	net change (signed, to indicate direction)
Effective Date	effectiveDate	Integer	Effective Date to which the information should be applied
Currency	currency	String	The ISO 4217 Currency Code for the Instrument

Fixed Income Summary Message

The Fixed Income Summary Message relays the summary of the current trading day's activity for a fixed income index. A summary message will not be sent for indexes that have no activity for the trading day.

Field	Name	Type	Notes
Type	msgType	String	B = Fixed Income Summary Message
Timestamp	timeStamp	Integer	Reflects the nanosecond portion of timestamp.
Financial Product Type (FP Type)	fpType	String	Denotes the primary asset class associated with the Instrument ID in the directory message. Refer to Appendix A for allowable values.
Brand	brand	String	Denotes the brand name associated with Instrument ID in the directory message. Refer to Appendix A for allowable values.
Series	series	String	Denotes the series identifier associated with the Instrument ID in the directory message. Refer to Appendix A for allowable values.
Instrument ID	instrumentID	String	Denotes the instrument identifier for the Index in the directory message.
Summary Type	summaryType	String	EOD = End of Day Summary SOD = Start of Day Summary PDA = Prior Day Summary Add PDC = Prior Day Summary Correction STL = Settlement Summary
SOD Value	sodValue	Long (E11)	Start of Day Value (prior day's closing price adjusted for corporate actions)
High	high	Long (E11)	calculated high value
Low	low	Long (E11)	calculated low value
EOD Value	eodValue	Long (E11)	end of day value
Net Change	netChange	Long (E11)	net change (signed, to indicate direction)
Effective Date	effectiveDate	Integer	Effective Date to which the information should be applied
Yield	yield	Long (E11)	Denotes the yield for the instrument value Calculated as the weighted average.
Duration	duration	Long (E11)	Denotes the Instrument duration value calculated as the weighted average according to Macaulay's duration
Coupon	coupon	Long (E11)	Denotes the index coupon value calculated as the weighted average.
Currency	currency	String	The ISO 4217 Currency Code for the Instrument ID.

Commodity Summary Message

The Commodity Summary Message relays the summary of the current trading day's activity for a commodity index. A summary message will not be sent for indexes that have no activity for the trading day.

Field	Name	Type	Notes
Type	msgType	String	C = Commodity Summary Message
Timestamp	timeStamp	Integer	Reflects the nanosecond portion of timestamp.
Financial Product Type (FP Type)	fpType	String	Denotes the primary asset class associated with the Instrument ID in the directory message. Refer to Appendix A for allowable values.
Brand	brand	String	Denotes the brand name associated with Instrument ID in the directory message. Refer to Appendix A for allowable values.
Series	series	String	Denotes the series identifier associated with the Instrument ID in the directory message. Refer to Appendix A for allowable values.

Field	Name	Type	Notes
Instrument ID	instrumentID	String	Denotes the instrument identifier for the Index in the directory message.
Summary Type	summaryType	String	EOD = End of Day Summary SOD = Start of Day Summary PDA = Prior Day Summary Add PDC = Prior Day Summary Correction STL = Settlement Summary
SOD Value	sodValue	Long (E11)	Start of Day Value (prior day's closing price adjusted for corporate actions)
High	high	Long	calculated high value
Low	low	Long	calculated low value
EOD Value	eodValue	Long	end of day value
Net Change	netChange	Long	net change (signed, to indicate direction)
Effective Date	effectiveDate	Integer	Effective Date to which the information should be applied
Currency	currency	String	The ISO 4217 Currency Code for the Instrument ID.

Exchange Traded Product Messages

The following messages are used to disseminate directory and daily valuation information as well as intraday tick values for Nasdaq intraday portfolio values for Nasdaq-listed Exchange Traded Products (ETPs).

ETP Directory and Daily Valuation Message

The ETP Daily Valuation Message is designed to provide the symbols and values of the prior day's closing ETP valuations, and is disseminated as part of the pre-opening processes.

Field	Name	Type	Notes
Type	msgType	String	D = ETP Daily Valuation Message
Timestamp	timeStamp	Integer	Reflects the nanosecond portion of timestamp.
Financial Product Type (FP Type)	fpType	String	Denotes the primary asset class associated with the Instrument ID in the directory message. Refer to Appendix A for allowable values.
Industry MIC	industryMIC	String	The ISO 10383 Market Identification Code (MIC) of the component security's primary listing market.
ETP Trading Symbol	etpTradingSymbol	String	Denotes the ETP instrument trading symbol as assigned by the listing market and matches the symbology used for outbound dissemination on the listing markets native dissemination protocols.
ETP IPV Symbol	etpIpvSymbol	String	Symbol identifying the Intraday Portfolio Value (IPV) to be disseminated in the ETP IPV Value message (i.e.: ABCD.IV; ABCDI)
Schedule	schedule	String	Denotes the dissemination schedule associated with the ETP IPV symbol in the directory message. Refer to Appendix A for allowable values.
Frequency	frequency	String	Denotes the Nasdaq or CAPI frequency code associated with the ETP IPV symbol in the directory message. Refer to Appendix A for allowable values.
State	state	String	Denotes the current Nasdaq or CAPI state associated with the ETP IPV symbol in the directory message. Refer to Appendix A for allowable values.
NAV Symbol	navSymbol	String	Symbol identifying the Net Asset Value per Creation Unit (ie: ABCD. NV; ABCDN)
NAV	NAV	Long (E2)	Net Asset Value per Creation Unit is reflected as long integer E2.

Field	Name	Type	Notes
Estimated Cash Per CU Symbol	ecuSymbol	String	Symbol identifying the Estimated Cash Per Creation Unit (ie: ABCD.EU; ABCDM)
ECU	ECU	Long (E2)	Estimated Cash Per Creation Unit.
Total Cash Per CU Symbol	totalCashSymbol	String	Symbol identifying the Total Cash Amount Per Creation Unit (ie: ABCD.TC; ABCDT)
Total Cash Per CU	totalCash	Long (E2)	The Estimated T-1 Cash Amount Per Creation Unit.
Estimated Cash Per Share Symbol	ecsSymbol	String	Symbol identifying the Estimated Cash Per Share -Net Accrued Dividend. (ie: ABCD.DV; ABCDD)
ECS	ECS	Long (E2)	Estimated Cash Per Share.
TSO Symbol	tsoSymbol	String	Symbol identifying the Total Shares Outstanding (ie: ABCD.SO; ABCDS)
TSO Outstanding	tsoOutstanding	Long (E0)	Total Shares Outstanding
Effective Date	effectiveDate	Integer	Effective Date to which the information should be applied.
Yield	yield	Long (E11)	Denotes the yield for the instrument value. Calculated as the weighted average. Populated for ETN products only.
Coupon	coupon	Long (E11)	Denotes the coupon value calculated as the weighted average. Populated for ETN products only.
Maturity Date	maturityDate	Integer	For ETN products, this will represent when the ETN reaches maturity. Populated for ETN products only.
Currency	currency	String	The ISO 4217 Currency Code for the Instrument ID.
ETP Name	etpName	String	ETP Instrument Name

ETP Intra-Day Valuation Message

The ETP IPV Value Message is used to disseminate the Intraday Portfolio Value (IPV) of an Exchange-traded Fund (ETF) or the Intra-Day Indicative Value (IIV) of an Exchange Traded Managed Fund (ETMF).

Field	Name	Type	Notes
Type	msgType	String	E = ETP Intra-day Valuation Message
Timestamp	timeStamp	Integer	Reflects the nanosecond portion of timestamp.
Financial Product Type (FP Type)	fpType	String	Denotes the primary asset class associated with the Instrument ID in the directory message. Refer to Appendix A for allowable values.
IPV Symbol	ipvSymbol	String	Denotes the IPV or IIV symbol for the Nasdaq or Contributor API (CAPI).
IPV Value	ipvValue	Long (E11)	The current calculated value for the IPV symbol.
Currency	currency	String	The ISO 4217 Currency Code for the Instrument.

ETP Summary Message

The ETP Summary Message relays the summary of the current trading day's IPV activity for an Exchange Traded Fund (ETF) or the IIV sactivity for an Exchange Traded Managed Fund (ETMFs). A summary message will not be sent for ETPs that have no activity for the trading day.

Field	Name	Type	Notes
Type	msgType	String	V = ETP Summary Message
Timestamp	timeStamp	Integer	Reflects the nanosecond portion of timestamp.
Financial Product Type (FP Type)	fpType	String	Denotes the primary asset class associated with the Instrument ID in the directory message. Refer to Appendix A for allowable values.

Field	Name	Type	Notes
Summary Type	summaryType	String	EOD = End of Day Summary SOD = Start of Day Summary PDA = Prior Day Summary Add PDC = Prior Day Summary Correction STL = Settlement Summary
IPV or IIV Symbol	ipvSymbol	String	Denotes the instrument identifier in the directory message.
SOD Value	sodValue	Long (E11)	Start of Day Value (first disseminated tick value)
High	high	Long (E11)	calculated high value
Low	low	Long (E11)	calculated low value
EOD Value	eodValue	Long (E11)	end of day value
Net Change	netChange	Long (E11)	net change (signed, to indicate direction)
Effective Date	effectiveDate	Integer	Effective Date to which the information should be applied
Currency	currency	String	The ISO 4217 Currency Code for the Instrument.

Appendices

Appendix A– Nasdaq Index Information Code (IIC) Attributes

A.1 Financial Product Type (FP Type)

Denotes the assigned financial product associated with the instrument ID

Code	Description
<blank>	Not Specified
I	Index
E	Exchange Traded Fund (ETF)
N	Exchange Traded Note (ETN)
F	Exchange Traded Managed Fund (ETMF)
S	Settlement
P	Spot
L	Subordinated product
W	World Currency
A	Alpha Index

A.2 Brand

The Index Brand is intended to provide details on the originating source of the instrument being disseminated. The allowable values are as follows:

Code	Description
<blank>	Not Specified
NQ	Nasdaq
CI	Custom Index – Client sponsored
OX	OMX
NX	Nasdaq
PI	Partner Index – Nasdaq Co-branded

Code	Description
PX	PHLX
OP	Outsourced Partner*
GA	Global Access Partner
FN	First North

*** "OP" Index Brand** will be used to identify indexes that appear within the GIDS data service and may also be contained within a Contributor API client data feed. It is intended to assist data recipients in identifying index data that may be duplicative and allow for the data recipients to filter out this data from the GIDS data service.

A.3 Series

The Index Series is intended to convey the Nasdaq entitlement to which the instrument is assigned. The following values are currently supported:

Code	Description
<blank>	Not Specified
NDQ	Nasdaq US
UAM	US All Market
ALW	All World
NQG	Nasdaq Global Index
GRN	Green Economy
CLE	Clean Energy
NOR	Nordic
BAL	Baltic
COM	Commodities
SHA	Sharia
NFI	Nordic Fixed Income
UST	US Treasury
NCM	Nasdaq Commodities
ETH	Ethical
SUS	Sustainable
OMR	OMRX
CRE	Credit SEK

A.4 Strategy

Code	Description
<blank>	Not Specified
TRD	Tradable
BM	Benchmark
COM	Composite
SEC	Sector
GRO	Growth
VAL	Value
INV	Inverse
LEV	Leverage

Code	Description
THE	Thematic
ETH	Ethical
SUS	Sustainable
SHA	Sharia
SRE	Social Responsible
STB	Stability
FDM	Fundamental
FCT	Factor
IVD	Investment Discipline

A.5 Asset Type

The Index Asset Type is intended to convey the composition of the instrument. The following values are currently supported:

Code	Description
<blank>	Not Specified
EQ	Equity
CM	Commodity
FI	Fixed Income
FX	Foreign Exchange
SP	Structured Products
FU	Funds
IX	Index
MC	Multi Class
XF	Exchange Traded Fund
XN	Exchange Traded Note
EC	Economic

A.6 Market Cap Size

Code	Description
<blank>	Not Specified
A	All
L	Large
M	Mid
S	Small
X	Large & Mid
Y	Mid & Small

A.7 Geography

The Index Geography Type may either be an ISO 3166 Country Code or one of the following:

Code	Description
<blank>	Not Specified
NAM	North America
LAM	Latin America
DEU	Developed Europe
EEU	Emerging Europe
DAP	Developed Asia Pacific
DMEA	Developed Middle East Africa
DMKT	Developed Markets
EAP	Emerging Asia Pacific
EMA	Emerging Middle East Africa
EMKT	Emerging Markets
FMKT	Frontier Markets
AP	Asia Pacific
MEA	Middle East Africa
ASI	Asia
EASI	Emerging Asia
DASI	Developed Asia
BRIC	BRIC
DXUS	Developed ex US
DXNA	Developed ex North America
DXUK	Developed ex UK
DXJP	Developed ex Japan
DEUK	Developed Europe ex UK
EXUK	Europe ex UK
AXJP	Asia Pacific ex Japan
AXUK	All World ex UK
AXUS	All World ex US
AXNA	All World ex North America
NOR	Nordic
BAL	Baltic
ALWO	All World

A.8 Index Settlement Type

Code	Description
<space>	Not Specified
O	Instrument settles at the open
C	Instrument settles at the close
M	Instrument settles at mid day

A.9 Index Calculation Method

Code	Description
<space>	Not Specified
PR	Price Return
GTR	Total Return
NTR	Net Total Return
ER	Excess Return
ETR	Excess Total Return
INV	Inverse
LEV	Leveraged
WCO	World Currency Options
DIV	Dividend
ALP	Alpha
VOL	Volatility
PMI	Pre Market Indicator
AHI	After Hours Indicator
UW	Un-weighted
ORX	OMRX
OON	OMRXON
MM	Money Market
NOR	NOREX
SSV	SSV
CP-	Commodity Price
CE-	Commodity Excess
CET	Commodity Excess Total
CFX	CMFX
CC-	Commodity Close
EXI	External Index
SET	Settlement
ALT	Alternative
NNR	Notional Total Return
HRE	Hedged Return

A.10 State

This indicates the current trading state of the instrument

Code	Description
A	Active
H	Held
P	Pending
D	Deleted

A.11 Usage

This indicates the current trading state of the instrument

Code	Description
L	Live
D	Demo
T	Test

A.12 Index Schedule / Session ID

The Session Identifier indicates the market session of the message, and indicates underlying trading session to be used in calculating the indexes. The allowable values are as follows:

Code	Description	Start of Session	Start of Tick Messages	End of Tick Messages	End of Session
<space>	Session Independent	NA	NA	NA	NA
IND	Session Independent	NA	NA	NA	NA
AME	American Market Session	02:00	08:15	18:30	19:45
CEU	Central Europe Market Session	19:15	03:00	12:00	14:30
EEU	Eastern Europe Market Session	19:15	03:00	12:00	14:30
ASI	Asia Market Session	19:15	19:30	12:00	14:30
PAC	Pacific Market Session	19:15	19:30	12:00	14:30
GLO	Global Market Session	22:05	22:30	17:16	19:45
BAL	Baltic Market Session	19:15	03:00	12:00	14:30
NOR	Nordic Market Session	19:15	03:00	12:00	14:30
NFI	Nordic Fixed Income Market Session	19:15	03:00	12:00	14:30
NSA	North/South America Market Session	02:00	09:30	17:16	19:45

Please note: The times above represent Eastern Time (ET). Please note that the indexes on each schedule may close at different times of the day, at which point the End of Day message for the index will be disseminated; these times may be earlier than the "End of Tick Messages" time indicated on the table above. In addition, the session times do not correspond with market hours of the local exchanges.

For example, an index with a session identifier of ”ASI” will use trading activity that originated from the Asian operational market hours, however, dissemination of messaging may continue beyond the operational hours of the session.

GIDS System Schedule

The table below details the schedule of the GIDS system as a whole. From Sunday to Thursday, the daily GIDS schedule is as follows. All times are in Eastern Time (ET).

Day	Time	Event	Description
T	7:10-7:30 PM	System Start Time	The system begins sending the Session Open message and heartbeats
T	8:30 PM	Tick Start Time	The system begins sending GIDS messages such as tick data
T+1	6:35 PM	Session Close	Session Close message is sent
T+1	6:40 PM	Shutdown Start Time	The system begins to shut down for the day

During the weekends, GIDS begins to shut down on Friday at 6:40 PM ET, remains closed on Saturday, and begins to start back up on Sunday between 7:10 PM and 7:30 PM ET.

A.13 Frequency

This denotes the frequency at which an instrument will be disseminated on the data feed.

Code	Description
<space>	Not Specified
TBT	Tick by tick
.01S	1/100 second
.10S	1/10 second
.25S	. second
.50S	. second
1S	Once a second / Every 1 second
5S	Every 5 seconds
15S	Every 15 seconds
60S	Every 60 seconds
15m	Every 15 minutes
ODOP	Once a day open
ODCL	Once a day close
ODID	Once a day intraday
OW	Once a week
OM	Once a month
OQ	Once a quarter
OY	Once a year

Message Type Summary

Instrument Type	Message Name	Message Type
N/A	Time Stamp – Seconds	T
N/A	System Event	S
Index - All	Index Directory	R
Index - All	Issue Symbol Participation	P
Index - All	Intraday Index Value (IIV)	I
Index - All	Settlement Value	A
Index - Equity	Equity Index Summary Values	F
Index - Fixed Income	Fixed Income Index Summary Values	B
Index - Commodity	Commodity Index Summary Values	C
ETP	ETP Directory & Valuation Data	D
ETP	ETP Intraday Value (IPV or IIV)	E
ETP	ETP Summary Message	V

Sample Data and Schema

System Event Message

Schema

{
"type" : "record",
"name" : "SeqSystemEvent",
"fields" : [{
"name" : "SoupPartition",
"type" : "int"   }, {
"name" : "SoupSequence",
"type" : "long"   }, {
"name" : "msgType",
"type" : "string"   }, {
"name" : "timeStamp",
"type" : "int"   }, {
"name" : "event",
"type" : "string"
}, {
"name" : "schedule",
"type" : "string"
}]

Sample

{
"SoupPartition": 0,
"SoupSequence": 123,
"msgType": "S",
"timeStamp": 778252208,
“event”: O,
“schedule”:
}

Index Directory Message

Schema

{
"type" : "record",
"name" : " SeqIndexDirectory",
"fields" : [{
"name" : "SoupPartition",
"type" : "int"   }, {
"name" : "SoupSequence",
"type" : "long"   }, {
"name" : "msgType",
"type" : "string"   }, {
"name" : "timeStamp",
"type" : "int"   }, {

"name" : "instrumentID",
"type" : "string"
}, {
"name" : " disseminationFlag",
"type" : "string"
}, {
"name" : " fpType",
"type" : "string"
}, {
"name" : "brand",
"type" : "string"
}, {
"name" : "series",
"type" : "string"   }, {
"name" : "strategy",
"type" : "string"
}, {
"name" : "assetType",
"type" : "string"
}, {
"name" : "marketCapSize",
"type" : "string"
}, {
"name" : "currency",
"type" : "string"
}, {
"name" : "geography",
"type" : "string"   }, {
"name" : "settlementType",
"type" : "string"   }, {
"name" : "calculationMethod",
"type" : "string"
}, {
"name" : "state",
"type" : "string"
}, {
"name" : " indexUsage",
"type" : "string"
}, {
"name" : "schedule",
"type" : "string"
}, {
"name" : "frequency",
"type" : "string"   }, {
"name" : "numberOfIssueParticipation",
"type" : "int"
}, {
"name" : "baseValue",
"type" : "long"

}, {
"name" : "baseDate",
"type" : "int"
}, {
"name" : "instrumentName",
"type" : "string"
}]

Sample

{
"SoupPartition": 0,
"SoupSequence": 23701552,
"msgType": "R",
"timeStamp": 57708853,
"instrumentID": "DEFX",
"disseminationFlag": "Y",
"fpType": "I",
"brand": " ",
"series": " ",
"strategy": " ",
"assetType": " ",
"marketCapSize": " ",
"currency": "USD",
"geography": " ",
"settlementType": " ",
"calculationMethod": " ",
"state": "A",
"indexUsage": "L",
"schedule": " ",
"frequency": "60S ",
"numberOfIssueParticipation": 0,
"baseValue": 0,
"baseDate": 0,
"instrumentName": "DEFIX: Decentralized Finance Index"
}

Issue Symbol Participation Message

Schema

{
"type" : "record",
"name" : " SeqIssueSymbolParticipation",
"fields" : [{
"name" : "SoupPartition",
"type" : "int" }, {
"name" : "SoupSequence",
"type" : "long" }, {
"name" : "msgType",
"type" : "string" }, {

"name" : "timeStamp",
"type" : "int"   }, {
"name" : "instrumentID",
"type" : "string"
}, {
"name" : "issueSymbol",
"type" : "string"
}, {
"name" : "issueMIC",
"type" : "string"
}, {
"name" : "issueName",
"type" : "string"
}]

Sample

{
"SoupPartition": 0,
"SoupSequence": 123,
"msgType": "P",
"timeStamp": 778252208,
“instrumentID”: “NDX”,
“issueSymbol”: “CTAS”,
“issueMIC”: “XNAS”,
“issueName”: “CINTAS CORP”
}

Intraday Index Value (IIV) Message

Schema

{
"type" : "record",
"name" : "SeqIndexTickDetail",
"fields" : [{
"name" : "SoupPartition",
"type" : "int"   }, {
"name" : "SoupSequence",
"type" : "long"   }, {
"name" : "msgType",
"type" : "string"   }, {
"name" : "timeStamp",
"type" : "int"   }, {
"name" : "fpType",
"type" : "string"
}, {
"name" : "brand",
"type" : "string"
}, {

"name" : "series",
"type" : "string"
}, {
"name" : "instrumentID",
"type" : "string",
}, {
"name" : "tickValue",
"type" : "long"
}, {
"name" : "tickDirection",
"type" : "string"
}, {
"name" : "currency",
"type" : "string"
}]

Sample

{
"SoupPartition": 0,
"SoupSequence": 23531098,
"msgType": "I",
"timeStamp": 778252208,
"fpType": "I",
"brand": "NQ",
"series": "NQG",
"instrumentID": "NQEMASIA60LM ",
"tickValue": 147573227751019,
"tickDirection": "+",
"currency": "USD"
}

Settlement Value Message

Schema

{
"type" : "record",
"name" : "SeqSettlementValue",
"fields" : [{
"name" : "SoupPartition",
"type" : "int" }, {
"name" : "SoupSequence",
"type" : "long" }, {
"name" : "msgType",
"type" : "string" }, {
"name" : "timeStamp",
"type" : "int" }, {
"name" : "fpType",
"type" : "string"
}, {

"name" : "brand",
"type" : "string"
}, {
"name" : "series",
"type" : "string"
}, {
"name" : "instrumentID",
"type" : "string"
}, {
"name" : "settlementValue",
"type" : "long"
}, {
"name" : "settlementType",
"type" : "string"
}, {
"name" : "currency",
"type" : "string"
}]

Sample

{
"SoupPartition": 0,
"SoupSequence": 23744760,
"msgType": "A",
"timeStamp": 768467132,
"fpType": "S",
"brand": " ",
"series": " ",
"instrumentID": "IXCI",
"settlementValue": 665280528179200,
"settlementType": "C",
"currency": "USD"
}

Equities Summary Message

Schema

{
"type" : "record",
"name" : "SeqEquitiesSummary",
"fields" : [{
"name" : "SoupPartition",
"type" : "int" }, {
"name" : "SoupSequence",
"type" : "long" }, {
"name" : "msgType",
"type" : "string" }, {
"name" : "timeStamp",
"type" : "int" }, {

"name" : "fpType",
"type" : "string"
}, {
"name" : "brand",
"type" : "string"
}, {
"name" : "series",
"type" : "string"
}, {
"name" : "instrumentID",
"type" : "string"
}, {
"name" : "summaryType",
"type" : "string"
}, {
"name" : "sodValue",
"type" : "long"
}, {
"name" : "high",
"type" : "long"
}, {
"name" : "low",
"type" : "long"
}, {
"name" : "eodValue",
"type" : "long"
}, {
"name" : "netChange",
"type" : "long"
}, {
"name" : "effectiveDate",
"type" : "int"
}, {
"name" : "currency",
"type" : "string"
}]

Sample

{
"SoupPartition": 0,
"SoupSequence": 23744760,
"msgType": "F",
"timeStamp": 768467132,
"fpType": "I",
"brand": " NQ",
"series": "NDQ",
"instrumentID": "COMP",
"summaryType": “SOD”,
"sodValue": 8012.3054690179,

"high": " ",
"low": " ",
"eodValue": " ",
"netChange": " ",
"effectiveDate": 20220523,
"currency": "USD"
}

Fixed Income Summary Message

Schema

{
"type" : "record",
"name" : "SeqFixedIncomeSummary",
"fields" : [{
"name" : "SoupPartition",
"type" : "int" }, {
"name" : "SoupSequence",
"type" : "long" }, {
"name" : "msgType",
"type" : "string" }, {
"name" : "timeStamp",
"type" : "int" }, {
"name" : "fpType",
"type" : "string"
}, {
"name" : "brand",
"type" : "string"
}, {
"name" : "series",
"type" : "string"
}, {
"name" : "instrumentID",
"type" : "string"
}, {
"name" : "summaryType",
"type" : "string"
}, {
"name" : "sodValue",
"type" : "long"
}, {
"name" : "high",
"type" : "long"
}, {
"name" : "low",
"type" : "long"
}, {
"name" : "eodValue",
"type" : "long"

}, {
"name" : "netChange",
"type" : "long"
}, {
"name" : "effectiveDate",
"type" : "int"
}, {
"name" : "yield",
"type" : "long"
}, {
"name" : "duration",
"type" : "long"
}, {
"name" : "coupon",
"type" : "long"
}, {
"name" : "currency",
"type" : "string"
}]

Sample

{
"SoupPartition": 0,
"SoupSequence": 23744760,
"msgType": "B",
"timeStamp": 768467132,
"fpType": "I",
"brand": " NQ",
"series": "NDQ",
"instrumentID": " NQMAFI",
"summaryType": "SOD",
"sodValue": 817.55501098547,
"high": " ",
"low": " ",
"eodValue": " ",
"netChange": " ",
"effectiveDate": 20220601,
"yield": " "
"duration": " ",
"coupon": " ",
"currency": " "
}

Commodity Summary Message

Schema

{
"type" : "record",
"name" : "SeqCommoditySummary",

```
"fields" : [ {
"name" : "SoupPartition",
"type" : "int"       }, {
"name" : "SoupSequence",
"type" : "long"    }, {
"name" : "msgType",
"type" : "string"   }, {
"name" : "timeStamp",
"type" : "int"       }, {
"name" : "fpType",
"type" : "string"
}, {
"name" : "brand",
"type" : "string"
}, {
"name" : "series",
"type" : "string"
}, {
"name" : "instrumentID",
"type" : "string"
}, {
"name" : "summaryType",
"type" : "string"
}, {
"name" : "sodValue",
"type" : "long"
}, {
"name" : "high",
"type" : "long"
}, {
"name" : "low",
"type" : "long"
}, {
"name" : "eodValue",
"type" : "long"
}, {
"name" : "netChange",
"type" : "long"
}, {
"name" : "effectiveDate",
"type" : "int"
}, {
"name" : "currency",
"type" : "string"
} ]
```

Sample

{
"SoupPartition": 0,
"SoupSequence": 23744760,
"msgType": "C",
"timeStamp": 768467132,
"fpType": "I",
"brand": " NQ",
"series": "NDQ",
"instrumentID": " NQUSB55102010",
"summaryType": “SOD”,
"sodValue": 1869.26905146402
"high": " ",
"low": " ",
"eodValue": " ",
"netChange": " ",
"effectiveDate": 20220601,
"currency": "USD"
}

ETP Directory and Daily Valuation Message

Schema

{
"type" : "record",
"name" : "SeqEtpDirectoryAndDailyValue",
"fields" : [{
"name" : "SoupPartition",
"type" : "int" }, {
"name" : "SoupSequence",
"type" : "long" }, {
"name" : "msgType",
"type" : "string" }, {
"name" : "timeStamp",
"type" : "int" }, {
"name" : "fpType",
"type" : "string"
}, {
"name" : "industryMIC",
"type" : "string"
}, {
"name" : "etpTradingSymbol",
"type" : "string"
}, {
"name" : "etpIpvSymbol",
"type" : "string"

}, {
"name" : "schedule",
"type" : "string"   }, {
"name" : "frequency",
"type" : "string"
}, {
"name" : "state",
"type" : "string"
}, {
"name" : "navSymbol",
"type" : "string"
}, {
"name" : "NAV",
"type" : "long"
}, {
"name" : "ecuSymbol",
"type" : "string"   }, {
"name" : "ECU",
"type" : "long"   }, {
"name" : "totalCashSymbol",
"type" : "string"
}, {
"name" : "totalCash",
"type" : "long"
}, {
"name" : "ecsSymbol",
"type" : "string"
}, {
"name" : "ECS",
"type" : "long"
}, {
"name" : "tsoSymbol",
"type" : "string"   }, {
"name" : "tsoOutstanding",
"type" : "long"
}, {
"name" : "effectiveDate",
"type" : "int"
}, {
"name" : "yield",
"type" : "long"
}, {
"name" : "coupon",
"type" : "long"
}, {
"name" : "maturityDate",
"type" : "int"
}, {
"name" : "currency",

"type" : "string"
}, {
"name" : "etpName",
"type" : "string"
}]

Sample

{
"SoupPartition": 0,
"SoupSequence": 38406084,
"msgType": "D",
"timeStamp": 928930027,
"fpType": "E",
"industryMIC": "XNAS",
"etpTradingSymbol": "ADRE",
"etpIpvSymbol": "ADREI",
"schedule": "AME",
"frequency": "1S",
"state": "A",
"navSymbol": "ADREN",
"NAV": 3966,
"ecuSymbol": "ADREM",
"ECU": 1269988,
"totalCashSymbol": "ADRET",
"totalCash": -389132,
"ecsSymbol": "ADRED",
"ECS": 25,
"tsoSymbol": "ADRES",
"tsoOutstanding": 3500000,
"effectiveDate": 20220524,
"yield": 0,
"coupon": 0,
"maturityDate": 20220524,
"currency": "USD",
"etpName": "BLDRS Emerging Markets 50 ADR Index Fund"
}

ETP Intra-Day Valuation Message

Schema

{
"type" : "record",
"name" : "SeqEtpIpvValuet",
"fields" : [{
"name" : "SoupPartition",
"type" : "int"   }, {
"name" : "SoupSequence",
"type" : "long"   }, {
"name" : "msgType",

"type" : "string"   }, {
"name" : "timeStamp",
"type" : "int"   }, {
"name" : "fpType",
"type" : "string"
}, {
"name" : "ipvSymbol",
"type" : "string"
}, {
"name" : "ipvValue",
"type" : "long"
}, {
"name" : "currency",
"type" : "string"
}]

Sample

{
"SoupPartition": 0,
"SoupSequence": 23701552,
"msgType": "S",
"timeStamp": 778252208,
“fpType”: "E",
“ipvSymbol”: "QXV",
“ipvValue”: 292.56,
“currency”: "USD"
}

ETP Summary Message

Schema

{
"type" : "record",
"name" : "SeqEtpSummary",
"fields" : [{
"name" : "SoupPartition",
"type" : "int"   }, {
"name" : "SoupSequence",
"type" : "long"   }, {
"name" : "msgType",
"type" : "string"   }, {
"name" : "timeStamp",
"type" : "int"   }, {
"name" : "fpType",
"type" : "string"
}, {
"name" : "summaryType",
"type" : "string"
}, {

```
"name" : "ipvSymbol",
"type" : "string"
}, {
"name" : "sodValue",
"type" : "long"
}, {
"name" : "high",
"type" : "long"
}, {
"name" : "low",
"type" : "long"
}, {
"name" : "eodValue",
"type" : "long"
}, {
"name" : "netChange",
"type" : "long"
}, {
"name" : "effectiveDate",
"type" : "int"
}, {
"name" : "currency",
"type" : "string"
} ]
```

Sample

```
{
"SoupPartition": 0,
"SoupSequence": 23744760,
"msgType": "C",
"timeStamp": 768467132,
"fpType": "E",
"summaryType": “SOD”,
"ipvSymbol": " QXV",
"ipvValue": " ",
"sodValue": 8012.3054690179,
"high": " ",
"low": " ",
"eodValue": " ",
"netChange": " ",
"effectiveDate": 20220523,
"currency": "USD"
}
```

Revision History

Date	Version	Change Description
November 2019	1.0	Initial Publication of tech specification
July 2020	1.0a	Added Appendix section and branding update
April 2022	1.0b	Minor documentation clean up. • Added a note below the System Schedule under section A.12 Schedule / Session ID to indicate that EOD message may vary for each index. • Removed VNX (VINX) from A.2 Brand and A.3 Series tables.
June 2022	1.0c	Added sample data and schema for each message type
February 2023	1.0d	Update to coverage