Historical Data Product Manual

Version 3.0.9

(Updated on 2026-05-19)

Date	Version	Description
2021-04-23	3.0.0	1. Add closing price, message sequence number, and sending time to SH Level-1 market snapshot 2. Add K-line quantity and trading day fields for SH Level-1 K-line 3.Add transaction number, channel code, Active Buy/Sell flag, business sequence number field for SH Level-2 tick data 4. Add tick by tick order queue for SH Level-2 market data 5. Add remarks on the enabling time in data files and field descriptions
2021-11-25	3.0.1	1. Add bond tick data for SH Level-2 market 2. Add fields on SH Level-2 market snapshot 3. Add message dissemination time on SH Level-2 tick data
2022-10-27	3.0.2	1. Adjust the document structure and classify each market data 2. Adjust SH Level-2 market snapshot and K line, SH Level-1 market snapshot and K line IOPV field precision
2023-05-31	3.0.3	1. Adjust SH Level-1 market snapshots, after-hours fixed price trading snapshots and K-lines precision of transaction amount 2. Adjust SH Level-2 market snapshots, after-market fixed-price transaction snapshots, after-market fixed-price tick data and the K-lines precision of transaction amount 3. Adjust the transaction amount precision of the SH stock option market snapshot and K-line
2024-07-03	3.0.4	1. SH Level-2 market, tick by tick data (Tick.csv) and tick by tick order queue data (Entrust.csv) will no longer be provided starting from July 8, 2024. They will be combined into tick by tick combined data (StockTick.csv). 2. Description adjustments
2025-02-28	3.0.5	1. Add CFFEX K-line
2026-03-24	3.0.6	1. Add and update every day upload time 2. Add more description on SFTP

		4. Update SH2 Snapshot hierarchy format
2026-03-27	3.0.7	1. Added an independent IOPV market data file 2. Adjusted the values of IOPV-related fields in Level-1 and Level-2 market snapshots and K-line data
2026-04-15	3.0.8	1. 1. Add Historical Data Technical Support Contact 2. Update Data Delivery Time
2026-05-08	3.0.9	1. Standardized ongoing and specific historical data package directory hierarchy. 2. Clarified path separators, case sensitivity, and customer login root (/ongoing). 3. Added field-level unit, precision, time-format, and availability guidance. 4. Highlighted StockTick.csv migration from Tick.csv and Entrust.csv. 5. Corrected naming and minor wording inconsistencies.

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1 Historical data service and delivery method

The provision of historical data is divided into ongoing data and one time data packages. Depending on the service and the volume of data, historical data will be delivered via AWS WorkDocs, SFTP, or a portable hard disk.

Subscription of ongoing historical data service

The ongoing historical data is transmitted to related distribution channel and an account is provided for users to log in and download. Normally, the historical data is updated on daily basis before 22:00 for trading days (HKT); in rare cases, clients shall re-check availability at:

- 00:00
- 02:00

The platform will keep the most recent 2 weeks trading data. Users can download each trading day data for maximum three times (To ensure fair use, repeated downloads may be rate-limited. If additional downloads are required, please contact support).

For the request from client or **in the event of a public cloud service disruption**, CIIS cloud platform will provide SFTP link and login account for users to download historical data until the public cloud service is recovered.

To download workdoc drive, users can download from the following link:
https://amazonworkdocs.com/en/clients

To download files via SFTP, users can download from the following IP:
sftp://223.197.52.106:22/

For the user guide of workdoc drive, users can find the following link which provide the installation and the mounting method:
https://docs.aws.amazon.com/workdocs/latest/userguide/workdocs_drive_help.html

Subscription of one time historical data packages

The one time data packages are extracted from past historical data according to the trading period which user requests. Delivery method is determined by data volume.

For the data volumes below 5GB, it is provided by SFTP of third-party public cloud platform for users to download. User who has subscribed to ongoing data can use their subscription account to download on the third-party cloud platform. User who does not contain subscription account, we will allocate a temporary account of the CIIS Server for user to login and download within 30 days from the time of URL provided. After 30 days, the temporary account will be disabled.

For the data volumes above 5GB, the historical data will be stored on an encrypted portable hard disk and sent via courier.

2 Data Definition

For market division, it includes SSE Level-1 Market, SSE Level-2 Market, SSE Stock Options Market and China Indices Market. For data content, it includes snapshot data, tick by tick data, auction data, K-line(day) data, K-line(minute) data and independent IOPV market data.

The specific terms are as follows:

1. Snapshot
   Each snapshot interval is 3 seconds or 5 seconds (if the adjacent snapshots are identical, the first one is retained), the snapshots of all securities for one day are stored in a file in chronological order.

2. Tick by Tick
   It provides detailed transaction data for each transaction of securities and store transactions of all securities for one day in a file in chronological order.

3. Tick by Tick order queue
   It provides securities tick by tick order queue data. The tick by tick order queue data of all securities are stored in a file in chronological order.

4. Auction
   It provides securities open auction data. The open auction data of all securities for one day are stored in a file in chronological order.

5. K-line(day) and K-line(minute)
   On the basis of providing K-line data for both day and minute, providing previous close price and basic data.

6. End of day (EOD)
   It provides the market data of Day-end closing data. Each file contains the whole year of EOD data.

3 File Format

For the files of snapshot, k-line and tick by tick, the files are in CSV format. Each field is separated by "," (English half-width) and encoded by UTF-8

The format of the first line:
HEAD: version number,yyyy/MM/dd HH:mm:ss
For example: HEAD:v1,2021/01/21 11:50:53
HEAD is a fixed string. The version number is the file interface version number. The date and time are the execution time of the data cleaning program.

For end of day data, the file is in text format. Each field is separated by "|" and encoded by GB2312.

4 Directory hierarchy

Subscription of ongoing historical data service

Path convention: customer login starts from /ongoing. The paths below are shown relative to /ongoing and use "/" as the standard separator. Windows users may see backslashes in local tools, but the server-side logical paths use "/". Market folder names are case-sensitive and must be used exactly as shown, for example SH1, SH2, SH2_Snapshot, CSI and CFF.

Data type	**Hierarchy format (relative to /ongoing)**
SSE Level-1 snapshot	SH1/<Date>/Snapshot.csv E.g. SH1/20260507/Snapshot.csv
SSE Level-1 after-market fixed price snapshot	SH1/<Date>/FpTradeSnap.csv E.g. SH1/20260507/FpTradeSnap.csv
SSE Level-2 snapshot	SH2_Snapshot/<Date>/Snapshot.csv E.g. SH2_Snapshot/20260507/Snapshot.csv
SSE Level-2 after-market fixed price snapshot	SH2_Snapshot/<Date>/FpTradeSnap.csv E.g. SH2_Snapshot/20260507/FpTradeSnap.csv
SSE Level-2 tick by tick combined data	SH2/Tick/<Date>/StockTick.csv E.g. SH2/Tick/20260507/StockTick.csv
SSE Level-2 bond tick-by-tick	SH2/Tick/<Date>/BondTick.csv E.g. SH2/Tick/20260507/BondTick.csv
SSE Level-2 after-market fixed price tick-by-tick	SH2/Tick/<Date>/FpTradeTick.csv E.g. SH2/Tick/20260507/FpTradeTick.csv
SSE Level-2 legacy tick by tick	SH2/Tick/<Date>/Tick.csv No longer provided from 2024-07-08 onward; use StockTick.csv.
SSE Level-2 legacy tick by tick	SH2/Entrust/<Date>/Entrust.csv

order queue	No longer provided from 2024-07-08 onward; use StockTick.csv.
CSI snapshot	CSI/Snapshot/<Date>/Snapshot.csv E.g. CSI/Snapshot/20260507/Snapshot.csv
CFFEX snapshot	CFF/Snapshot/<Date>/Snapshot.csv E.g. CFF/Snapshot/20260507/Snapshot.csv
CFFEX K-line (Day)	CFF/Day/<Date>/Day.csv E.g. CFF/Day/20260507/Day.csv
CFFEX K-line (Minute)	CFF/Minute/<Date>/Minute.csv E.g. CFF/Minute/20260507/Minute.csv
End of day	EOD/<Year>/se003sshqyyyymmdd.txt

One Time historical data packages

Package convention: unless otherwise agreed for a large bespoke package, specific historical data packages are delivered in the standardized format <Market>/<Date>/<File>.csv. This is intentionally different from the ongoing service hierarchy, which may include product-type folders such as Tick, Snapshot, Day or Minute.

Data type	**Hierarchy format**
After-market fixed price snapshot	<Market>/<Date>/FpTradeSnap.csv E.g. SH2/20200811/FpTradeSnap.csv
Snapshot	<Market>/<Date>/Snapshot.csv E.g. SH2/20200811/Snapshot.csv
After-market fixed price tick by tick	<Market>/<Date>/FpTradeTick.csv E.g. SH2/20200811/FpTradeTick.csv
Bond tick by tick	<Market>/<Date>/BondTick.csv E.g. SH2/20211210/BondTick.csv
Tick by Tick	<Market>/<Date>/Tick.csv No longer available starting from 2024-07-08.
Tick by Tick Order Queue	<Market>/<Date>/Entrust.csv No longer available starting from 2024-07-08.
Tick by Tick Combined Data	<Market>/<Date>/StockTick.csv E.g. SH2/20240708/StockTick.csv
Auction	<Market>/<Date>/Auction.csv E.g. SH2/20180811/Auction.csv
K-line (Day)	<Market>/<Date>/Day.csv E.g. SH2/20180811/Day.csv
K-line (Minute)	<Market>/<Date>/Minute.csv E.g. SH2/20180811/Minute.csv
End of day	EOD/<Year>/se003sshqyyyymmdd.txt

4.1 Market Mapping table

Market	Market Short name / folder
SSE Level-1	SH1
SSE Level-2 Tick	SH2
SSE Level-2 Snapshot	SH2_Snapshot
SSE Stock Options	SHO
SSE Fixed Income	SHFI
China Indices	CSI
China Financial Futures Exchange	CFF

4.2 Type Mapping table

Type	Type name
After-market fixed price trading snapshot	FpTradeSnap
Market Snapshot Data	Snapshot
After-market fixed price trading tick by tick	FpTradeTick
Bond tick by tick	BondTick
Tick by Tick Data	Tick (no longer available starting from 2024-07-08)
Tick by Tick Order Queue	Entrust (no longer available starting from 2024-07-08)
Tick by Tick Combined Data	StockTick
Auction	Auction
K-line(day)	Day
K-line(min)	Minute

5 Product List

The types of historical data provided by different markets are different. Please read the table below for details:

Product	Content	First Issue Date
Shanghai Stock Exchange ("SSE") Level-1 Historical Data (excluding Stock Options)	1. SSE Level-1 Snapshot and K-line file 2. SSE Fix Income Snapshot file	2 January 2014

SSE Level-2 Intra-Day Snapshot Historical Data (excluding Stock Options)	1. SSE Level-2 Snapshot and K-line file 2. SSE Fix Income Snapshot file	2 January 2014
SSE Level-2 Historical Tick Data (excluding Stock Options)	1. SSE Level-2 Tick Data file 2. SSE Fix Income Tick Data file	2 January 2014
SSE Level-2 Historical Tick by Tick Order Queue Data (excluding Stock Options)	1. SSE Level-2 Tick by Tick Order Queue Data file	2 January 2015
SSE Level-2 Historical Tick by Tick CombinedData (excluding Stock Options)	1. SSE Level-2 Tick by Tick Combined Data file	27 November 2023
SSE Stock Options Intra-Day Snapshot Historical Data	1. SSE Stock Options Snapshot and K-line file	9 February 2015
China Indices Intra-Day Snapshot Historical Data	1. China Indices Snapshot and K-line file	3 January 2017
China Financial Futures Exchange Level-2 Intra-Day Snapshot Historical Data	1. CFFEX Level-2 Snapshot Historical Data	1 August 2017
SSE and China Indices End of Day Historical Data (excluding Stock Options)	1. SSE and China Indices EOD file with Text format	19 December 1990

6 Market Data

The number in brackets indicates the number of decimal places (for example, NUMBER(3) indicates three decimal places). Unless otherwise stated, DateTime, TradeTime, TickTime, TransactTime and SendingTime use China market local time. Field availability dates are stated in the Remarks column where applicable.

6.1 Shanghai Level-1

Market-level convention: currency fields are stated in yuan unless otherwise specified; turnover fields use yuan with the decimal precision shown in the Type column. Volume units vary by instrument type: stocks are shares, warrants are contracts, bonds and indices use lots unless otherwise stated. DateTime uses local China market time in YYYYMMDDHHMMSS format unless a millisecond example is explicitly provided. Field availability or activation dates are stated in the Remarks column.

6.1.1 Snapshot

Filename: SH1/<Date>/Snapshot.csv

Field Name	Definition	Type	Remark
SecurityID	Security Code	STRING	
DateTime	Date and time	NUMBER	Business time, e.g 20150803093008
PreClosePx	Previous close price	NUMBER(3)	
OpenPx	Open price	NUMBER(3)	
HighPx	High price	NUMBER(3)	
LowPx	Low price	NUMBER(3)	
LastPx	Last price	NUMBER(3)	
Volume	Volume	NUMBER	Stocks: Shares Warrant: Contract Bond: Lot Index: Lot
Amount	Turnover	NUMBER(3)	Unit: yuan Starting from 20230601, the value will be adjusted from 2 decimal places to 3 decimal places precision
BidPrice[5]	BID price (5 market depth)	NUMBER(3)	
BidOrderQty[5]	Quantity of BID order (5 market depth)	NUMBER	
OfferPrice[5]	ASK price (5 market depth)	NUMBER(3)	
OfferQty[5]	Quantity of ASK order (5 market depth)	NUMBER	
NumTrades	Number of trades	NUMBER	Level-1 FAST
IOPV	Indicative Optimized Portfolio Value	NUMBER(5)	This field remains 0.00000 until activation. From 2026-03-30, where available, the independent IOPV file is the authoritative source for IOPV values.
NAV	Net Asset Value	NUMBER(5)	This field is set to 0.00000; activation time is pending.
PhaseCode	Phase Code	STRING	This field is an 8 characters string. Each character from the left represents a specific meaning. It is blank if there is no specific

			meaning. The first character: 'S' represents the market pre-open period; 'C' represents the call auction period; 'T' represents the continuous auction period; 'B' represents the afternoon market closed period; 'E' represents the end-of-day market closed period; 'P' represents the instrument suspended temporarily; 'M' represents the circuit breaking period which is resumable for trading (intraday call auction); 'N' represents the circuit breaking period which is not resumable for trading (trading suspension until market closure); 'D' represents the period between the end of the open call auction period and the continuous auction period(if any). The second character: ‘0’ indicates the instrument cannot be traded normally; ‘1’ indicates the instrument can be traded normally, blank for no specific meaning. The third character: ‘0’ indicates the instrument is unlisted; ‘1’ indicates the instrument is listed. The fourth character: ‘0’ indicates the new order declaration is not accepted for the instrument in the current period; ‘1’ indicates the new order declaration is accepted for the instrument in the current period, blank for no specific meaning.
AvgPx	Average price	NUMBER(3)	
ClosePx	Closing price	NUMBER(3)	
MsgSeqNum	Message sequence number	NUMBER	
SendingTime	Message sending time	NUMBER	e.g 20150803093008

6.1.2 After-market fixed price trading snapshot (STAR Board)

Filename: SH1/<Date>/FpTradeSnap.csv

Field Name	Definition	Type	Remark
SecurityID	Security Code	STRING	
DateTime	Date and time	NUMBER	Business time, e.g 20150803093008
TradeVolume	Traded volume	NUMBER	
TotalValueTraded	Turnover	NUMBER(3)	Starting from 20230601, the value will be adjusted from 2 decimal places to 3 decimal places precision
ClosePrice	Close price	NUMBER(3)	
BuyVolume	Buy Volume	NUMBER	
SellVolume	Sell Volume	NUMBER	
TradingPhaseCode	Trading phase code	STRING	The 0th character: ‘I’ indicates market pre-open period; ‘A’ indicates call auction period; ‘H’ indicates continuous call auction period; ‘D’ indicates market close period; ‘F’ indicates suspension. The 1st character: ‘0’ indicates the instrument does not accept new order declaration; ‘1’ indicates the instrument accepts new order declaration;
TimeStamp	Latest transaction timestamp	STRING	HHMMSSss

6.1.3 Independent IOPV Market Data

IOPV availability: IOPV values in Snapshot and K-line files remain 0 until activation. From 2026-03-30, where the independent IOPV file is available, SH1/<Date>/IOPV.csv is the authoritative source for IOPV values.

Filename: SH1/<Date>/IOPV.csv. This file is expected to be available from March 30, 2026.

Field Name	Definition	Type	Remark
SecurityID	Security Code	STRING	
DateTime	Date and time	NUMBER	E.g 20150803093008
IOPV	Indicative Optimized Portfolio Value	NUMBER(5)	

6.1.4 K-line

Filename: Daily K-line SH1/<Date>/Day.csv;

Minute K-line SH1/<Date>/Minute.csv

Field Name	Definition	Type	Remark
SecurityID	Security Code	STRING	
DateTime	Date and time	NUMBER	Daily K-line: 20151123
		NUMBER	Minute K-line: 20151123091630
PreClosePx	Previous close price	NUMBER(3)	
OpenPx	Open price	NUMBER(3)	
HighPx	High price	NUMBER(3)	
LowPx	Low price	NUMBER(3)	
LastPx	Last price	NUMBER(3)	
Volume	Volume	NUMBER	
Amount	Turnover	NUMBER(3)	Starting from 20230601, the value will be adjusted from 2 decimal places to 3 decimal places precision
IOPV	Indicative Optimized Portfolio Value	NUMBER(3)	This field remains 0.000 until activation. From 2026-03-30, where available, the independent IOPV file is the authoritative source for IOPV values.
fp_Volume	After-market fixed price trading volume	NUMBER	kshare
fp_Amount	After-market fixed price trading turnover	NUMBER(3)	kshare
AvgPx	Average price	NUMBER(3)	
MinuteNum	Number of minute K-lines	NUMBER	
TradingDay	Trading day	NUMBER	

6.2 SSE Level-2

Market-level convention: currency fields are stated in yuan unless otherwise specified; turnover fields use yuan with the decimal precision shown in the Type column. Volume/quantity units are shares for stocks, contracts for warrants and lots for bonds/indices unless otherwise stated. Time fields use local China market time; tick-level files may include 1/100-second or millisecond precision as shown in each field remark. Field availability dates are stated in the Remarks column.

Important discontinuation: From 2024-07-08 onward, Tick.csv and Entrust.csv are no longer provided. Use SH2/Tick/<Date>/StockTick.csv only for tick by tick stock data. The Type field in StockTick.csv distinguishes order book additions, deletions, product status messages and transactions.

Legacy file / concept	**StockTick.csv mapping**
Tick.csv transaction records	Type = T (Transaction); SecurityID, TickTime, Price, Qty, TradeMoney, BuyOrderNo, SellOrderNo, TickBSFlag, TickIndex, ChannelNo and SendingTime carry the transaction-level information.
Entrust.csv add orders	Type = A (Order Book Add); BuyOrderNo or SellOrderNo indicates the relevant order side, Price and Qty carry the order price and quantity, and TickBSFlag indicates B or S.
Entrust.csv delete orders	Type = D (Order Book Delete); BuyOrderNo or SellOrderNo indicates the cancelled order side, Qty carries the relevant quantity where applicable, and TickBSFlag indicates B or S.
Product status messages	Type = S (Product Status Book); TickBSFlag carries the status value such as ADD, START, OCALL, TRADE, SUSP, CCALL, CLOSE or ENDTR.

6.2.1 Snapshot

Filename: SH2_Snapshot/<Date>/Snapshot.csv

Field Name	Definition	Type	Remark
SecurityID	Security Code	STRING	
DateTime	Date and time	NUMBER	Business time 20151123091630
PreClosePx	Previous close price	NUMBER(3)	
OpenPx	Open price	NUMBER(3)	
HighPx	High price	NUMBER(3)	

LowPx	Low price	NUMBER(3)	
LastPx	Last price	NUMBER(3)	
TotalVolumeTrade	Total volume traded	NUMBER	Stocks: Shares Warrant: Contract Bond: Lot Index: Lot
TotalValueTrade	Turnover	NUMBER(3)	Unit: yuan Starting from 20230601, the value will be adjusted from 2 decimal places to 3 decimal places precision
InstrumentStatus	Trading Status	STRING	
BidPrice[10]	BID price (10 market depth)	NUMBER(3)	
BidOrderQty[10]	Quantity of BID order (10 market depth)	NUMBER	
BidNumOrders[10]	Total Number of BID orders(10 market depth)	NUMBER	
BidOrders[50]	Recent 50 transactions on BID(1) price	NUMBER	
OfferPrice[10]	ASK price (10 market depth)	NUMBER(3)	
OfferOrderQty[10]	Quantity of ASK order (10 market depth)	NUMBER	
OfferNumOrders[10]	Total Number of ASK orders(10 market depth)	NUMBER	
OfferOrders[50]	Recent 50 transactions on ASK(1) price	NUMBER	
NumTrades	Number of trades	NUMBER	
IOPV	Indicative Optimized Portfolio Value for ETF	NUMBER(5)	This field is set to 0.00000; activation time is pending.
TotalBidQty	Total quantity of BID orders	NUMBER	Stocks: Shares Warrant: Contract Bond: Lot
TotalOfferQty	Total quantity of ASK orders	NUMBER	Stocks: Shares Warrant: Contract

			Bond: Lot
WeightedAvgBidPx	Weighted Average BID Price	NUMBER(3)	
WeightedAvgOfferPx	Weighted Average ASK price	NUMBER(3)	
TotalBidNumber	Total number of BID orders	NUMBER	
TotalOfferNumber	Total number of ASK orders	NUMBER	
BidTradeMaxDuration	Maximum duration of BID trade	NUMBER	
OfferTradeMaxDuration	Maximum duration of ASK trade	NUMBER	
NumBidOrders	Number of BID order levels	NUMBER	
NumOfferOrders	Number of ASK order levels	NUMBER	
WithdrawBuyNumber	Number of withdrawing buy orders	NUMBER	
WithdrawBuyAmount	Quantity of withdrawing buy orders	NUMBER	
WithdrawBuyMoney	Amount of withdrawing buy orders	NUMBER(2)	
WithdrawSellNumber	Number of withdraw sell orders	NUMBER	
WithdrawSellAmount	Quantity of withdrawing sell orders	NUMBER	
WithdrawSellMoney	Amount of withdrawing sell orders	NUMBER(2)	
ETFBuyNumber	Number of ETF buy orders	NUMBER	
ETFBuyAmount	Quantity of ETF buy orders	NUMBER	
ETFBuyMoney	Amount of ETF buy orders	NUMBER(2)	
ETFSellNumber	Number of ETF sell orders	NUMBER	
ETFSellAmount	Quantity of ETF sell orders	NUMBER	
ETFSellMoney	Amount of ETF sell orders	NUMBER(2)	
AvgPx	Average price	NUMBER(3)	Effective from 2021-12-01

ClosePx	Close price	NUMBER(3)	Effective from 2021-12-01
MsgSeqNum	Message sequence number	NUMBER	Effective from 2021-12-01
SendingTime	Sending time	NUMBER	e.g 20150803093008 Effective from 2021-12-01
WarLowerPx	Weighted average price of bond repo instruments	NUMBER(3)	Effective from 2021-12-01
TradingPhaseCode	Trading phase code	STRING	Effective from 2021-12-01
NumImageStatus	Type of snapshot	NUMBER	1: full 2: incremental Effective from 2021-12-01

6.2.2 After-market fixed price trading snapshot (STAR Board)

Filename: SH2_Snapshot/<Date>/FpTradeSnap.csv

Field Name	Definition	Type	Remark
SecurityID	Security Code	STRING	
DateTime	Date and time	NUMBER	e.g 20150803093008000(ms)
ClosePx	Close price	NUMBER(3)	
InstrumentStatus	Trading Status	STRING	INIT - Start PCALL - Call Auction Period POSMT - Continuous Trading Period ENDPT - Close POSSP - Suspension
NumTrades	Number of trade transactions	NUMBER	
TotalVolumeTrade	Total volume traded	NUMBER	
TotalValueTraded	Turnover	NUMBER(3)	Starting from 20230601, the value will be adjusted from 2 decimal places to 3 decimal places precision
TotalBidQty	Total quantity of BID	NUMBER	

	orders		
TotalSellQty	Total quantity of ASK orders	NUMBER	
WithdrawBuyNumber	Number of withdrawing buy orders	NUMBER	
WithdrawBuyAmount	Quantity of withdrawing buy orders	NUMBER	
WithdrawSellNumber	Number of withdrawing sell orders	NUMBER	
WithdrawSellAmount	Quantity of withdrawing sell orders	NUMBER	
BidOrderQty	BID orders quantity	NUMBER	
BidNumOrders	Number of BID Orders	NUMBER	
BidOrders[50]	Top 50 levels BID quantity	NUMBER	
OfferOrderQty	ASK orders quantity	NUMBER	
OfferNumOrders	Number of ASK Orders	NUMBER	
OfferOrders[50]	Top 50 levels ASK quantity	NUMBER	

6.2.3 Call Auction

Filename: SH2/Auction/<Date>/Auction.csv

Remark: Auction data is no longer available after 20181224

Field Name	Definition	Type	Remark
SecurityID	Security Code	STRING	
DateTime	Date and time	NUMBER	e.g 20151123091630
Price	Price	NUMBER(3)	Level-2
VirtualAuctionQty	Virtual matched quantity	NUMBER	

LeaveQty	Virtual unmatched quantity	NUMBER	
Side	Matching status	STRING	0=Without unmatched orders 1= unmatched orders remained on BID side 2 =unmatched orders remained on ASK side

6.2.4 Tick by Tick

Filename: SH2/Tick/<Date>/Tick.csv

Tick by tick data file (Tick.csv) and tick by tick order queue data file (Entrust.csv) will no longer be provided starting from July 8, 2024. They will be combined into tick by tick combined data (StockTick.csv).

Field Name	Definition	Type	Remark
SecurityID	Security Code	STRING	
TradeTime	Trade time	NUMBER	Business time 2015112309163002 (to the nearest 1/100 secs) v2 to the nearest ms, e.g： 20151123091630020
TradePrice	Trade price	NUMBER(3)	
TradeQty	Traded volume	NUMBER	
TradeAmount	Turnover	NUMBER(3)	
BuyNo	Buy side order number		
SellNo	Sell side order number		
TradeIndex	Trade Index	NUMBER	
ChannelNo	Channel number	NUMBER	
TradeBSFlag	Active Buy/Sell orders flag	STRING	Active Buy/Sell orders flag: B- Active buy S- Active sell N- Unknown
BizIndex	Business index	NUMBER	Business serial number and transaction number are unified, starting from 1 and

			continuing by channel number
SendingTime	SendingTime	NUMBER	e.g： 20151123091630020 Field effective after 2021-12-01

6.2.5 After-market fixed price trading tick by tick (STAR Board)

Filename: SH2/Tick/<Date>/FpTradeTick.csv

Field Name	Definition	Type	Remark
SecurityID	Security Code	STRING	
DateTime	Date and time	NUMBER	2015112309163002 (to the nearest 1/100 secs) v2 to the nearest ms, e.g： 20151123091630020
TradePrice	Trade price	NUMBER(3)	
TradeQty	Traded volume	NUMBER	
TradeMoney	Turnover	NUMBER(3)	Starting from 20230601, the value will be adjusted from 2 decimal places to 3 decimal places precision
TradeBuyNo	BID order number	NUMBER	
TradeSellNo	ASK order number	NUMBER	
TradeBSFlag	Active Buy/Sell orders symbol	STRING	Active Buy/Sell orders symbol: B- Active buy order S- Active sell order N- Unknown
TradeIndex	Trade index	NUMBER	
TradeChannel	Trade channel	NUMBER	

6.2.6 Tick by Tick order queue

Filename: SH2/Entrust/<Date>/Entrust.csv

Tick by tick data file (Tick.csv) and tick by tick order queue data file (Entrust.csv) will no longer be provided starting from July 8, 2024. They will be combined into tick by tick combined data (StockTick.csv).

Field Name	Definition	Type	Remark
SecurityID	Security Code	STRING	
TransactTime	Order time	NUMBER	2015112309163002 To the nearest ms
OrderNo	Order number	NUMBER	
Price	Order price(yuan)	NUMBER(3)	
Balance	Remaining order number	NUMBER	
OrderBSFlag	Buy or sell order flag	STRING	Buy or sell order flag: B- Buy order S- Sell order
OrdType	Order type	STRING	Order type: A – Add order D – Delete order
OrderIndex	Order Index	NUMBER	
ChannelNo	Channel number	NUMBER	
BizIndex	Business index	NUMBER	Business serial number and transaction number are unified, starting from 1 and continuing by channel number

6.2.7 Bond tick by tick

Filename: SH2/Tick/<Date>/BondTick.csv

This file was provided since 2021-12-01. The data in the file is subject to the actual business launch time.

Field Name	Definition	Type	Remark
SecurityID	Security Code	STRING	
TickTime	Order or transaction time	NUMBER	Business time 2015112309163002 to the nearest ms, e.g: 20151123091630020
Type	Type	STRING	A – New order D – Delete order

			S – Product status order T – Transaction
BuyOrderNo	Buy order number	NUMBER	If it is a product status order or a sell order, it is meaningless.
SellOrderNo	Sell order number	NUMBER	If it is a product status order or buy order, it is meaningless
Price	Price	NUMBER(3)	Unit: yuan If it is a product status order or a deleted order, it is meaningless.
Qty	Quantity	NUMBER	Unit: lot If it is a product status order, it is meaningless
TradeMoney	Turnover	NUMBER(3)	Unit: yuan This field is only applicable on transaction
TickBSFlag	Buy and sell flag	STRING	Applicable to new order or deleted order: B – Buy order S – Sell Order Applicable to product status order: ADD – Instrument is not listed START – Start OCALL – Market open call auction TRADE – Continuous Auction SUSP – Suspended CLOSE – Market closed ENDTR – End of trading day Applicable to transaction: B – Active buy order S – Active sell order
TickIndex	Tick index	STRING	Starting from 1 on each channel
ChannelNo	Channel number	NUMBER	
SendingTime	SendingTime	NUMBER	e.g: 20151123091630020

6.2.8 Tick by tick Combined Data

The tick by tick combined data includes new and deleted orders (order cancellations), product status orders and transactions.

Filename: SH2/Tick/<Date>/StockTick.csv

This file was provided since 2023-11-27. The data in the file is subject to the actual business launch time.

Field Name	Definition	Type	Remark
SecurityID	Security Code	STRING	
TickTime	Order placed time or trade time	NUMBER	Business time 2015112309163002 (to the nearest 1/100 secs)
Type	Type	STRING	Order Type A – Order Book (Add) D – Order Book (Delete) S – Product Status Book T - Deal
BuyOrderNo	Buy order number	NUMBER	If it is a product status order or seller order, it is meaningless
SellOrderNo	Sell order number	NUMBER	If it is a product status order or a buyer order, it is meaningless
Price	Price	NUMBER (3)	Order price (Yuan) If it is a product status order or order cancellation, it is meaningless
Qty	Quantity	NUMBER	Unit: Lot If it is a product status order, it is meaningless
TradeMoney	Turnover	NUMBER(3)	For new orders: The number of orders that have been executed (with a precision of 3 decimal places) For turnover: The turnover (in yuan, with a precision of 5 decimal places) Other meaningless
TickBSFlag	Buy and sell flag	STRING	For adding or deleting orders: B – Buy order S – Sell order For product status orders: ADD – Product not listed START – Start OCALL – Opening call auction TRADE – Continuous automatic matching SUSP – Suspension CCALL – Closing call auction

			CLOSE – Closing ENDTR – End of trading day For transaction orders: B – Active buy order S – Active sell order N – Unknown
TickIndex	Tick index	NUMBER	Starting from 1, continuous by channel
ChannelNo	Channel number	NUMBER	
SendingTime	Sending Time	NUMBER	e.g: 20151123091630020

6.2.9 K-line

Filename: Daily K-line SH2/Day/<Date>/Day.csv; Minute K-line SH2/Minute/<Date>/Minute.csv

Field Name	Definition	Type	Remark
SecurityID	Security Code	STRING	
DateTime	Date and time	NUMBER	Daily K-line: 20151123
		NUMBER	Minute K-line: 20151123091630
PreClosePx	Previous close price	NUMBER(3)	
OpenPx	Open price	NUMBER(3)	
HighPx	High price	NUMBER(3)	
LowPx	Low price	NUMBER(3)	
LastPx	Last price	NUMBER(3)	
Volume	Volume	NUMBER	
Amount	Turnover	NUMBER(3)	Starting from 20230601, the value will be adjusted from 2 decimal places to 3 decimal places precision
IOPV	Indicative Optimized Portfolio Value	NUMBER(3)	This field is set to 0.00000; activation time is pending.
fp_Volume	After-market fixed	NUMBER	kshare

	price trading volume		
fp_Amount	After-market fixed price trading turnover	NUMBER(3)	kshare

6.3 SSE Stock Option

Market-level convention: price and turnover fields are stated in yuan unless otherwise specified. Position and volume fields use contracts or lots as stated in the Remarks column. Time fields use local China market time in the format shown in each table. Field availability dates are stated in the Remarks column where applicable.

6.3.1 Snapshot

Filename: SHO/<Date>/Snapshot.csv

Field Name	Definition	Type	Remark
SecurityID	Security Code	STRING	
DateTime	Date and time	NUMBER	e.g 20150803093008
PreClosePx	Previous close price	NUMBER(4)	Unit: yuan
OpenPx	Open price	NUMBER(4)	Unit: yuan
HighPx	High price	NUMBER(4)	Unit: yuan
LowPx	Low price	NUMBER(4)	Unit: yuan
LastPx	Last price	NUMBER(4)	Unit: yuan
TotalLongPosition	Total long position	NUMBER	Unit: contract
TotalVolumeTrade	Total volume on the trading day	NUMBER	Unit: lot
TotalValueTrade	Turnover on the trading day	NUMBER(4)	To the nearest cent Starting from 20230601, the value will be adjusted from 2 decimal places to 4 decimal places precision
BidPrice[5]	BID price (5 market depth)	NUMBER(4)	Unit: yuan

BidOrderQty[5]	Quantity of BID order (5 market depth)	NUMBER	
OfferPx[5]	ASK price (5 market depth)	NUMBER(4)	Unit: yuan
OfferQty[5]	Quantity of ASK order (5 market depth)	NUMBER	
PhaseCode	Phase Code	STRING	This field is a 4 characters string. Each character from the left represents a specific meaning. It is blank if there is no specific meaning. The first character: 'S' represents the market pre-open period; 'C' represents the call auction period; 'T' represents the continuous auction period; 'B' represents the afternoon market closed period; 'E' represents the end-of-day market closed period; ‘V’ represents circuit breaker triggered due to volatility; 'P' represents the instrument suspended; ‘U’ represents close call auction; 'M' represents the circuit breaking period which is resumable for trading (intraday call auction); 'N' represents the circuit breaking period which is not resumable for trading (trading suspension until market closure); 'D' represents the period between the end of the open call auction period and the continuous auction period(if any). The second character: ‘0’ indicates the instrument is not continuous suspended ‘1’ indicates instrument is continuous suspended (reserved, blank currently). The third character: ‘'0' indicates open position is not restricted; '1' indicates opening position with cover is limited, '2' indicates open short position; '3' indicates opening short position and cover open position are limited; '4' indicates opening long position is limited; '5' indicates opening long position and opening positions with cover are limited, '6'

			indicates opening long and short positions are limited; '7' indicates opening long, short and cover positions are limited. The fourth character: '0' indicates the new order declaration is not accepted for the instrument in the current period; '1' indicates the new order declaration is accepted for the instrument in the current period.
AvgPx	Average price	NUMBER(4)	
PreSettlePx	Settle price on the previous trading day	NUMBER(4)	
SettlePx	Settle price on the trading day	NUMBER(4)	

6.3.2 K-line

Filename: Daily K-line SHO/<Date>/Day.csv;
Minute K-line SHO/<Date>/Minute.csv

Field Name	Definition	Type	Remark
SecurityID	Security Code	STRING	
DateTime	Date and time	NUMBER	Daily K-line: 20151123
		NUMBER	Minute K-line: 20151123091630
PreClosePx	Previous close price	NUMBER(4)	
OpenPx	Open price	NUMBER(4)	
HighPx	High price	NUMBER(4)	
LowPx	Low price	NUMBER(4)	
LastPx	Last price	NUMBER(4)	
Volume	Volume	NUMBER	
Amount	Turnover	NUMBER(4)	Starting from 20230601, the value will be adjusted from 2 decimal places to 4 decimal places precision
LongPosition	Long Position	NUMBER	
AvgPx	Average price	NUMBER(4)	

PreSettlePx	Settle price on the previous trading day	NUMBER(4)	
SettlePx	Settle price on the trading day	NUMBER(4)	

6.4 SSE Fixed Income tick data

Market-level convention: price fields are percentage-based where specified; turnover may be expressed in 10 thousand yuan as indicated in the Remarks column. Volume fields use lots unless otherwise stated. Time fields use local China market time. Fields marked as temporarily unavailable are not delivered until activation.

6.4.1 Snapshot

Filename: SHFI/<Date>/Snapshot.csv

Field Name	Definition	Type	Remark
SecurityID	Security Code	STRING	
DateTime	Date and time	NUMBER	e.g 20150803093008
PreClosePx	Close price on the previous trading day	NUMBER	Unit: percent For the bond repo repurchase agreement, it is the repurchase interest rate is accurate to 3 decimal places of %. The actual interest rate is enlarged by 100,000 times as the representation of this field. For example: 3.456% in reality should fill in 3456 in this field. The rules for filling in the interest rate in the repurchase agreement are the same as below.
PreWeightedAvgPx	weighted average price on the previous trading day	NUMBER	Unit: percent For the bond repo repurchase agreement, it is the weighted average interest rate of all transactions of this variety on the previous trading day.
OpenPx	Open price	NUMBER	Unit: percent For the bond repo repurchase agreement, it is the repurchase interest rate.

HighPx	High price	NUMBER	Unit: percent For the bond repo repurchase agreement, it is the repurchase interest rate.
LowPx	Low price	NUMBER	Unit: percent For the bond repo repurchase agreement, it is the repurchase interest rate.
LastPx	Last price	NUMBER	Unit: percent For the bond repo repurchase agreement, it is the repurchase interest rate.
WeightedAvgPx	Weighted average price	NUMBER	Unit: percent Add up the sum of the security (the price of each transaction multiplied by the number of transactions) and divide by (the total number of transactions)
TotalVolumeTrade	Volume on the trading day	NUMBER	Unit: lot
TotalValueTrade	Turnover on the trading day	NUMBER	Unit: 10 thousand yuans
TotalNumTrades	Number of transactions on the trading day	NUMBER	
PreCloseYield	Yield on the previous trading day	NUMBER	Percentage (4 decimal places)
PreWeightAvgYield	Weighted average yield on the previous trading day	NUMBER	Percentage (4 decimal places)
OpenYield	Open yield	NUMBER	Percentage (4 decimal places)
HighYield	High yield	NUMBER	Percentage (4 decimal places)
LowYield	Low yield	NUMBER	Percentage (4 decimal places)
LastYield	Last yield	NUMBER	Percentage (4 decimal places)
WeightAvgYield	Weighted average yield on the trading day	NUMBER	Percentage (4 decimal places)

AccruedInterestAmt	*Accrued interest amount*	*NUMBER*	*Unit: 0.1%*
BidNetPx[10]	*Bid net price*	*NUMBER*	*Unit: percent*
BidVolume[10]	*Bid volume*	*NUMBER*	*Unit: lot*
BidOrdersNum[10]	*Number of Bid orders*	*NUMBER*	
BidOrderNo[500]	*Bid order number*	*NUMBER*	*50*10, top 50 orders*
BidAuctionTime[500]	*Bid Auction time*	*NUMBER*	*HHMMSS*
BidAuctioneer[500]	*Bid Auctioneer*	*STRING*	*Trader abbreviation*
BidOrderQty[500]	*Quantity of the bid orders*	*NUMBER*	*Unit: lot*
BidYieldToMaturity[500]	*Bid yield to maturity*	*NUMBER*	*Percentage (4 decimal places)*
OfferNetPx[10]	*Offer net price*	*NUMBER*	*Unit: percent*
OfferVolume[10]	*Offer volume*	*NUMBER*	*Unit: lot*
OfferOrdersNum[10]	*Number of Offer orders*	*NUMBER*	
OfferOrderNo[500]	*Offer order number*	*STRING*	*50*10, top 50 orders*
OfferAuctionTime[500]	*Offer Auction time*	*NUMBER*	*HHMMSS*
OfferAuctioneer[500]	*Offer Auctioneer*	*STRING*	*Trader abbreviation*
OfferOrderQty[500]	*Quantity of the offer orders*	*NUMBER*	*Unit: lot*
OfferYieldToMaturity[500]	*Offer yield to maturity*	*NUMBER*	*Percentage (4 decimal places)*

Remarks: Some fields in italics are temporarily not available.

6.4.2 Tick by Tick

Filename: SHFI/<Date>/Tick.csv

Field Name	Definition	Type	Remark
SecurityID	Security Code	STRING	

TradeTime	Trade time	NUMBER	20151123093630
TradeNetPrice	Trade net price	NUMBER	Unit: percent
AccruedInterestAmt	Accrued interest amount	NUMBER	Unit: 0.1 percent
TradeFullPrice	Trade full price	NUMBER	Percentage (4 decimal places)
YieldToMaturity	Yield to maturity	NUMBER	Percentage (4 decimal places)
TradeQty	Volume	NUMBER	Unit: lot
TradeMoney	Turnover	NUMBER	Unit: 10 thousand yuans
TradeMethod	Trade method	STRING	1: Confirm quotation transaction 2: Pending quotation transaction 3: Inquiry and transaction 4: Agreement transaction 5: On-site emergency 6: Designated counterparty

6.5 CSI

Market-level convention: index value fields use the decimal precision shown in the Type column. Amount fields may use 10,000 yuan/dollars as stated in the Remarks column. Time fields use local China market time. Currency is identified by the Currency field where applicable.

6.5.1 Snapshot

Filename: CSI/Snapshot/<Date>/Snapshot.csv;

Field Name	Definition	Type	Remark
IndexID	Index ID	STRING	
DateTime	Date and time	NUMBER	YYYYMMDDHHMMSS

Market	Market Code	STRING	Market Code 1: Shanghai Stock Exchange; 2: Shenzhen Stock Exchange; 3: Shanghai and Shenzhen; 4: Hong Kong; 5: Asia Pacific; 6: bond market; 9: others; 0: global
PreCloseIndex	Close Index on previous day	NUMBER(4)	
OpenIndex	Open index on that day	NUMBER(4)	
HighIndex	Highest index on that day	NUMBER(4)	
LowIndex	Lowest index on that day	NUMBER(4)	
LastIndex	Last value	NUMBER(4)	The last value is the index at market close
Volume	Volume	NUMBER	Stock: quantified in shares Bond: quantified in
Amount	Turnover	NUMBER(5)	Amount (as in 10,000 yuans)
ExchangeRate	Exchange rate	NUMBER(8)	Exchange rate will be 0.00000000 during trading hours It is used to calculate index at market close
Currency	Currency	STRING	Currency: 0: RMB 1: Hong Kong dollar 2: US dollar 3: New Taiwan dollar 4: Japanese yen
IndexSeq	Index sequence	NUMBER	

LastIndex2	Last index 2	NUMBER(4)	If the index is global index, last index is the closing value of the Asia-Pacific on that day
LastIndex3	Last index 3	NUMBER(4)	If the index is a global index, the last index is the closing value of the European on that day.

6.5.2 K Line

Filename: Daily K-line CSI/Day/<Date>/Day.csv;

Minute K-line CSI/Minute/<Date>/Minute.csv

Field Name	Definition	Type	Remark
SecurityID	Security Code	STRING	
DateTime	Date and time	NUMBER	Date Time K Line (Day): YYYYMMDD K Line (Min): YYYYMMDDHHMMSS
PreClosePx	Previous close price	NUMBER(4)	
OpenPx	Open price	NUMBER(4)	
HighPx	High price	NUMBER(4)	
LowPx	Low price	NUMBER(4)	
LastPx	Last price	NUMBER(4)	
Volume	Volume	NUMBER	
Amount	Turnover	NUMBER(2)	
Reserved	Reserved	NUMBER	Filled with 0

6.6 CFFEX

Market-level convention: futures price and turnover fields use the precision shown in the Type column. Volume is stated in contracts unless otherwise specified by the exchange. DateTime uses local China market time and may include milliseconds as shown in the example. Field availability dates are stated in the Remarks column where applicable.

6.6.1 Snapshot

Filename: CFF/Snapshot/<Date>/Snapshot.csv;

Field Name	Definition	Type	Remark
SecurityID	Security ID	STRING	
DateTime	Date and time	NUMBER	e.g 20150803093008400
SettlementGroupID	Settlement Group ID	STRING	

SettlementID	Settlement ID	NUMBER	
LastPrice	Last Price	NUMBER(3)	
PreSettlementPrice	Settlement price of the previous day	NUMBER(3)	
PreClosePrice	Close price of the previous day	NUMBER(3)	
PreOpenInterest	Open interest of the previous day	NUMBER(3)	
OpenPrice	Open price	NUMBER(3)	
HighPrice	Highest price	NUMBER(3)	
LowPrice	Lowest price	NUMBER(3)	
Volume	Volume	NUMBER	
Turnover	Turnover	NUMBER(3)	
AveragePrice	Average price	NUMBER(3)	
OpenInterest	Open interest	NUMBER(3)	
ClosePrice	Close price	NUMBER(3)	
SettlementPrice	Settlement price of today	NUMBER(3)	
UpperLimitPrice	Upper limit price	NUMBER(3)	
LowerLimitPrice	Lower limit price	NUMBER(3)	
PreDelta	Delta of the previous day	NUMBER(4)	
CurrDelta	Delta of today	NUMBER(4)	
BidPrice[5]	Bid price	NUMBER(3)	
BidVolume[5]	Bid volume	NUMBER	
AskPrice[5]	Ask price	NUMBER(3)	
AskVolume[5]	Ask volume	NUMBER	

6.6.2 K Line

Filename: Daily K-line CFF/Day/<Date>/Day.csv;

Minute K-line CFF/Minute/<Date>/Minute.csv

Field Name	Definition	Type	Remark
SecurityID	Security ID	STRING	

DateTime	Date and time	NUMBER	Daily K-line: 20151123
		NUMBER	Minute K-line：20151123091630
PreClosePx	Previous close price	NUMBER(2)	
OpenPx	open price	NUMBER(2)	
HighPx	High price	NUMBER(2)	
LowPx	Low price	NUMBER(2)	
LastPx	Last price	NUMBER(2)	
Volume	Volume	NUMBER	
Amount	Turnover	NUMBER(2)	
AvgPx	Average price	NUMBER(2)	
OpenInterest	Open interest	NUMBER	
PreSettlePx	Settle price on the previous trading day	NUMBER(2)	
SettlePx	Settle price on the trading day	NUMBER(2)	

7. EOD Data

7.1 SSE and China Indices End of Day Historical Data

Field Name	Field Type	Description
TradeDate	string	YYYYMMDD
Security Code	char[6]	
Security Name	char[8]	
Open Price	number(4)	Open price Individual Index / stock suspension will fill in “0” value
Close Price	number(4)	Close price Individual Index / stock suspension will keep previous close

		price value
High Price	number(4)	High price Individual Index / stock suspension will fill in "0" value
Low Price	number(4)	Low price Individual Index / stock suspension will fill in "0" value
Trade Volume	number(4)	Volume of trade Individual Index / stock suspension will fill in "0" value
Trade Amount	NUMBER	Amount of trade Individual Index / stock suspension will fill in "0" value

8. Contact Information

For any questions regarding this Historical Data Product Manual, please contact us as follows:

- **Technical issues** (e.g. data unavailable after 02:00 (HKT) the next day, download problems, file format issues, etc.): **hd_support@ciis.com.hk**
- **Business-related inquiries** (subscription, pricing, data packages, delivery method, etc.): **hd@ciis.com.hk**