

eSpeed API C/C++ Application Program Interface

RELEASE NOTES

System Version: 1.4.13

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Product of the USA.

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Introduction

Overview

This document presents a brief summary of the differences between the current and previous releases of the eSpeed Application Program Interface (API). Full eSpeed API documentation is available in the eSpeedAPI Reference Guide.

Customer Support

Customer Support is available between 7:00am and midnight U.S. Eastern time, Monday through Friday, excluding holidays. When calling, please assist us by being ready with your product and account information.

The eSpeed Customer Support group has a series of phone numbers and e-mail addresses to meet various user needs. They are as follows:

- If you are a Customer with questions about possible trading scenarios or specific trading features (e.g. price improvement) please contact your account representative.
- If you are a Customer experiencing technical difficulty, have questions on how to use the system, please call or write:

```
eSpeed Call Center (US) — (+1) (212) 610-2300 or <u>support@espeed.com</u>
eSpeed Help Desk (Europe) — (0)20-7894-8600 or <u>support@espeed.co.uk</u>
```

• If you are a Customer or Salesperson requesting information on how to make changes to your electronic account, or require a new access account, please call or write:

```
eSpeed Customer Access (US) — (212) 610-2300 or <u>customeraccess@espeed.com</u>
eSpeed Customer Access (Europe) — (0)20-7894-8886 or <u>customeraccess@espeed.co.uk</u>
```

• If you are a Customer with questions regarding API development issues, downloading the latest version of the SDK or JNI, or testing a trade feed or market–making application, please call (between the hours of 9:00am and 6:00pm EST) or write:

```
eSpeed Customer Integration — (+1) (212) 610-3560 or <u>customerintegration@espeed.com</u>
```

• If you are a Customer with questions regarding specific trades, verification of a trade, or are experiencing delivery problems with a trade, please call:

```
eSpeed Trade Support (US) — (212) 610-2300
eSpeed Trade Support (Europe) — (0)20-7894-8600
```

Release History

Version 1.4.13

Maintenance Updates

Version 1.4.12

BIC Code in Trade Confirmations for European Repos

Contact the eSpeed Customer Integration for details of which trading system that provides the BIC code in trade confirmations.

Maintenance Updates

Version 1.4.11

Market Data Fields for Deal Structure and Trade Type

New market data fields are introduced to deliver enumerated values for deal structure and trade type. These are identical to the values that would be delivered in a trade confirmation for those businesses that provide these.

Version 1.3.27

Volume Weighted Average Price and Yield

The volume weighted average (VWA) price and yield for a trading session is now available in the market data stream. See the eSpeedAPI Reference Guide for interface details. For details regarding the availability of these fields for a particular business, contact your eSpeed Customer Integration representative.

Version 1.3.26

Maintenance Release

Version 1.3.25

Excluded prices for eSpeed FX

A new price code flag CFETI_PRICE_OPTION_EXCLUDE, is added that indicates that a participant's price and size in the market data is not "good to you". For configuration of which counterparts that are excluded, please contact your eSpeed Customer Integration representative.

Version 1.3.24

Application identity information extended

The application identity information supplied by the user is extended to include a mechanism for the application to provide operating system and platform details.

Brokerage Currency

A new field is added to FX Option and FX trade confirmations for brokerage currency.

Version 1.3.23

Instrument Query Result

A new element is added to the instrument query result entry data structure to describe the industry standard names of the underlying instruments in a switch or swap instrument. For details regarding the availability and use of this field please contact your eSpeed Customer Integration representative.

Yield in Trade Confirmations

A new yield field is added to the eSpeed trade confirmation data structure that, where available, will contain the yield value corresponding to the executed price.

Order Handling

If a market or order is submitted without an eSpeed assigned order identifier the US Treasury and eSpeed FX trading systems will create a new order in the system and assign that order a new order identifier. This is independent of whether the user already has a market or order at the same price and same side of the market. For more information on the use of this feature please contact your eSpeed Customer Integration representative.

Log file names

The names of the information and transaction log files are changed for users of the libESPD library to be ESPD_log.nn and ESPD_transaction.nn respectively (where nn is the day of the month).

Version 1.3.22

Only At Best

A new market/order preference is introduced for only-at-best. Only at best orders are submitted without a price. Instead the price shall be determined by the trading system upon receipt of the order. The assigned price will then not subsequently change for the life of that order.

Market-To-Follow

A new command status code is introduced for market-cancelled and order-cancelled notifications to indicate that a subsequent market-created notification will follow. For information on the availability of this feature please contact your eSpeed Customer Integration representative.

Asset Swap Level

New market data fields are introduced and a new field is added to the trade confirmation data structure for asset swap level. For more information on the availability of this feature please contact your eSpeed Customer Integration representative.

Version 1.3.21

Trading system connection interface

The interface CFETIConnect is modified in this release and now requires an additional parameter. Please refer to the C/C++ Application Program Interface: Reference Guide for details.

New market data decode interface

A new interface *CFETIDecodeDataField* is added to the eSpeed API and the existing market data decode interfaces *CFETIDecodeField* and *CFETIDecodeFieldExt* are deprecated. Developers are recommended to modify their applications to use the new interface. Full details of the new interface are given in the eSpeed API reference guide.

Interest Rate Derivative Support

A new order info structure CFETI_IRD_TRADE_DESC is introduced to deliver interest rate derivative trade specific fields in trade confirmations. New market data fields are also introduced for interest rate derivative products.

Trade Ending State

A new market data state is introduced that shall be set during a trade when that trade is about to end. Details are given in appendix B of the eSpeed API reference guide.

Version 1.3.20

Cancel Queued

A new command will be delivered in place of the "cancel reject" message when a cancel request is received by the trading system that cannot be granted at that time. This new command, called "cancel queued", will indicate that the cancel request has been acknowledged by the trading system but has been queued. The introduction of this new command will enable customer applications to interact with eSpeed more efficiently. Commands subsequent to the "cancel queued" notification will indicate what size, if any, was cancelled by the trading system as well as what size, if any, was executed.

Market as Order

When markets are received by the trading system while in a "trade state", and the submitted market's price is equal to or better than the trade price, eSpeed currently rejects the market. Going forward, customers that submit markets at or better than the trade price while the trading system is in trade state will have their markets accepted as orders. If the entire quantity of the order is not executed and the trade state terminates the customer application will receive a market cancelled and market created message sequence.

Please note that these features are available exclusively through versions 1.3.20a and libESPD 1.4.3.0 or higher of the eSpeed API and will not be made available through previous versions. Should you have any questions please contact your eSpeed Customer Integration representative.

Version 1.3.19

Session Boundary Notifications

Notifications are now sent when a user first connects and whenever a trading session starts/ends. For more information on the availability of this feature please contact your eSpeed Customer Integration representative.

Session Market Data Boundaries

The market data fields used to deliver high/low/open/close for different trading sessions are now extended to include yield. Also, a new net change field is introduced. For more information on the availability of this feature please contact your eSpeed Customer Integration representative.

New command status code

A new command status code is introduced that will be returned when a market is submitted too far away from the current best market price. Applications should not immediately re-submit the market at the same price. For more information please contact your eSpeed Customer Integration representative.

• Helper Macros

Helper macros are moved in this release from cfeti_fields.h to cfeti.h.

• Client Checkout Information

A facility to allow client applications to electronically accept or reject trades there was broker action taken on behalf of the user during its execution is now available. Please refer to the C/C++ Application Program Interface: Reference Guide for full details.

New fields in Trade Confirmations

New fields are added to the trade confirmation data structure for pricing method, trade type and deal structure. Also added is a trade confirmation version number.

New fields in Market & Order Executions

A new execution price field is delivered in market and order execution notifications. For businesses that support trading through the stack this value can differ from the price field in the same data structure.

Set Password

A new interface is provided to allow eSpeed client applications to submit a request to modify their eSpeed password.

Version 1.3.17

PI Benefit Support

A new field CFETI_ORDER_DESC::pPIBenefit sent as trade confirmation is populated with a struct CFETI_PI_BENEFIT_DESC to show the amount of PI benefit afforded to the customer as a result of the trade. The amounts are in the same currency as that in which the trade will be settled. If no PI Benefit information is available for the trade, the field is NULL.

FX Option Support

The order info structure for trade confirmations for FX Trades has been updated to support FX Option trades. A new order info structure CFETI_FX_OPTION_TRADE_DESC will be carry the FX Option specific fields in trade confirmations for FX Options.

Clearer Trade Id

The field clearerTradeId will be populated where eSpeed is reporting the trade to a third-party clearer and that clearer requires the same Id for the buy and sell sides of the same trade for matching purposes.

Session Price Boundaries

The Price Boundary information describes the session high, low, open and close prices for trading sessions in different regions. The different session are delivered in corresponding market data field, which then is decoded and the result available in a CFETI_PRICE_BOUNDARY_DESC.

Version 1.3.16

Market Availability

A new market data field CFETF_MARKET_AVAILABILITY_NOTIFICATION is introduced. When decoded the client application is provided with details of the availability of tradable size in the market for the instrument in question. Please refer to the *C/C++ Application Program Interface: Reference Guide* for full details.

Mid Price Dealing

A facility is provided required for clients to trade at an indicated price within a bid/ask spread. Users can enter a price/market *inside* the prevailing touch price by providing a mid-price order. Please refer to the C/C++ Application Program Interface: Reference Guide for full details.

Session High/Low/Open/Close

New market data fields are introduced to provide high, low, opening and closing price for a number of trading sessions.

Version 1.3.15

Exhange Orders

Support is added to the eSpeed API to allow applications to submit orders to and receive trade confirmations from exchanges such as CBOT and Eurex through the API. The eSpeed API documentation for this feature is available in C/C++ Application Program Interface: Exchange Support. Please contact your customer integration representative for more information.

Direct Dealing

The eSpeed electronic trading platform provides a direct dealing function that is distinct from the interactive-matching based trading that has been available from its inception. Access to the direct dealing system is now available through the eSpeed API. The eSpeed API documentation for this feature is available in C/C++ Application Program Interface: Direct Dealing. Please contact your customer integration representative for more information.

Version 1.3.14

Indicative Markets

Supported is added to the API to allow client applications to contribute indicative prices to eSpeed. This option is available only if your account is enabled for indicative market contribution for the business in question. For more information please contact your eSpeed Customer Integration representative.

FX Options

Supported is added to the API to allow client applications to create baskets of markets for FX options.

Actions can be specified that are applied to other markets in the basket when one market in the basket is traded (e.g. to cancel other markets in the basket). Also provided is a mechanism to provide automatic cancellation of an FX options market when the underlying spot rate goes outside tolerances specified by the client. Please refer to the C/C++ Application Program Interface: Reference Guide for full details.

New Market Data Fields

New market data fields are added for outright prices and for delivery of high/low/open/close for each of the Tokyo, London and New York trading sessions.

Version 1.3.13

Maintenance Release

Version 1.3.12

Maintenance Release

Version 1.3.11

Instrument attributes in Trade Confirmations

Support is added to the API to provide delivery of instrument attributes in trade confirmations. Trade feed applications should take advantage of this facility rather than subscribe to the instruments wherever this feature is available.

New status code for rejected logins

A new status code CFETI_CANNOT_AUTHENTICATE is defined and can be delivered as a reason for an unsuccessful login or trading system connection. The error indicates that there was a system error that prevented user authentication.

IRS vs Futures

Support is added to the API to allow trading of Interest Rate Swaps vs Futures. The mechanism is similar to that already available for trading US Treasury Swaps.

New Market Data Fields

New market data fields are added for alternate instrument descriptions and for the labels used by eSpeed for SuperQuads TM .

Version 1.3.10

Subscribe to List

Support is added to the API to allow application to request subscription to a list of instruments in a single request. Please refer to the C/C++ Application Program Interface: Reference Guide for full details.

New Market Data Fields

New market data fields are added to define a list of instruments that have an association with the instrument that identifies them in its market data. These are CFETF_INSTRUMENT_CHAIN and CFETF_CHAIN_PARENT_LIST. These are encrypted fields and should be decoded using CFETIDecodeFieldExt.

FX

The definition of the FX order info structure referenced from the eSpeed order structure has been changed. The existing data structure CFETI_FXOPTIONS_TRADE_DESC has been replaced by a new data structure CFETI_FX_TRADE_DESC. Please refer to the *C/C++ Application Program Interface: Reference Guide* for full details.

Notification of invalidated instrument query

A new notification is delivered when instruments are added or removed from the eSpeed platform for businesses to which the application is connected to indicate that a cached instrument query result is no longer valid.

Version 1.3.9

Maintenance Release

Version 1.3.8

New instrument identifiers

Instrument identifier types in addition to CUSIP and ISIN have been defined. These are CFETI_INSTRUMENT_ID_CFID and CFETI_INSTRUMENT_ID_SYMBOL.

Version 1.3.7

Maintenance Release

Version 1.3.6

FHLB Trade Confirmations

Support added for FHLB trade confirmations. Please refer to the *Addendum : FHLB Trade Confirm* for details.

FX Options market data fields

New market data fields for FX Options. Please refer to the C/C++ Application Program Interface: Reference Guide for full details.

FX Options Trade confirmations

The FX specific data structure for trade confirmations CFETI_FXOPTIONS_TRADE_DESC has been extended to contain a number of new fields. Please refer to the *C/C++ Application Program Interface*:

Reference Guide for full details.

Energy market data fields

New market data fields for Energy. Please refer to the C/C++ Application Program Interface: Reference Guide for full details.

Energy Trade confirmations

The energy specific data structure for trade confirmations CFETI_ENERGY_TRADE_DESC has been extended with a number of new fields. Please refer to the *C/C++ Application Program Interface: Reference Guide* for full details.

Compound Instrument Field

A new market data field CFETF_COMPOUND_INST_LIST has been added. This field is used to deliver a list of instruments associated with the instrument containing the field. The field is decoded using the CFETIDecodeExt interface. Please refer to the *C/C++ Application Program Interface: Reference Guide* for full details.

Version 1.3.5

Price Improvement

A new feature is now available in the US Treasury trading systems. The eSpeed market and order data structures have been updated and new market data fields are added to provide support for this feature.

Improved trading system connection recovery

The connection recovery of trading system connections has been updated. It now recovers the connection to the trading system successfully in more cases than before.

Application identity information extended

The application identity information supplied by the user is now extended with the operating system and version identified at runtime.

Version 1.3.4

Extended Market structure

The CFETI_MARKET structure has been extended to be able to carry an order information type structure. This is so far only used for Treasury Swaps, the CFETI_TSWAP structure.

Support for Treasury Swaps

New market data fields added: CFETF_TSWAP_RATIO, CFETF_LOCK_PRICE, CFETF_BID_YIELD_SPREAD, CFETF_ASK_YIELD_SPREAD, CFETF_YIELD_PRICE_TYPE, CFETF_LOCK_YIELD, CFETF_PROPERTIES.

A new order information type has been defined for Treasury Swaps details: CFETI_TSWAP. This structure can be part of a CFETI_MARKET or a CFETI_ORDER structure.

Version 1.3.3

New Market Data Fields

The fields CFETF_NAME and CFETF_DAILY_LAST_TRADED_PRICE are added.

Updated patch level requirement for the build platforms

OS version	generic patch level	SUNWlibC
Solaris 2.6	Generic_105181-30	105591-13
Solaris 7	Generic_106541-18	106327-12
Solaris 8	Generic_108528-06	108435-05
WinNT4	- SP6	
Win2000	- SP2	

Compiler patches

SunPro 53 (Sun WorkShop 6 update 2 C++ 5.3) - Patch: 111685-05

MSVC60, Service Pack 5

Supported new OS-compiler combinations

Support for Solaris 8 with compiler 5.3 has been added. Support for compiler 5.3 with Solaris 2.6 and 7 have been added.

Version 1.3.2

Maintenance Release

This release of the eSpeedAPI includes a number of internal improvements.

Version 1.3.1

Date and Time Representation

The eSpeedAPI is modified so that dates and times may now be carried in fields with either field data type *datetime* or field datatype *uint32*. Applications should ensure that the correct data type is used according to the field description.

Trade Properties

A new field, trade properties, is added to the order structure. A flag is introduced to indicate trade, where the price executed is an improved price.

Version 1.3.0

New Interfaces

The interface *CFETIAuthenticate* is deprecated in this release. New interfaces *CFETIOpenSession*, *CFETLogin* and *CFETICloseSession* are introduced in its place. If the function is still used a warning will be written to the eSpeed API error log. Please refer to the *C/C++ Application Program Interface: Reference Guide* for full details.

Login Tag

The eSpeedAPI authentication interfaces *CFETILogin* and *CFETIAuthenticate* require an additional parameter which is a tag string to identify the source of the login request. You will be contacted by your eSpeed Customer Integration representative if you need to use this parameter and for the value(s) that you should supply. Otherwise, please pass zero for this parameter. For applications built using a C++ compiler the value of this parameter is defaulted to zero. Customers using a C compiler should pass the value zero for this parameter if a login tag is not required.

Version 1.2.15

Energy Trade Market Data Fields

A number of new data fields are added to the market data stream to support energy businesses. Please refer to the C/C++ Application Program Interface: Reference Guide for full details.

Updated CFETI_ENERGY_TRADE_DESC

The energy specific data structure for trade confirmations CFETI_ENERGY_TRADE_DESC has been extended with a number of new fields. Please refer to the *C/C++ Application Program Interface: Reference Guide* for full details.

CFETI DATE and CFETI TIME

New data types defining an encoding of time and date. CFETI_DATE is an unsigned int representing a date in the format CCYYMMDD, which can be a date beyond 2038. CFETI_TIME is an unsigned int representing a time in the format HHMMSSCC. Please refer to the *C/C++ Application Program Interface: Reference Guide* for full details.

Version 1.2.14

Market and Order Preferences

New generic market and order preferences have been defined as follows: CFETI_TRADE_OPTION_1, CFETI_TRADE_OPTION_2 and CFETI_TRADE_OPTION_3. Synonyms specific for European Repos are also defined to enable specification of clearing preferences when a market or order is submitted.

Execution of Markets/Orders

A new status code CFETI_CHECK_CREDIT is introduced. This will be set when a manual check credit check will be applied to the trade before it can be confirmed.

Notification of pending trades

A new command code CFETI_TRADE_PENDING is introduced. This will be delivered when a manual process will be applied to the trade before it is confirmed. For a giveup-enabled business this will be a credit check.

Completion of trade query

A trade query result may be delivered in more than one call to the connection callback for large results. An additional call to the callback will now be made when all of the information has been delivered.

Extensions to the eSpeed order structure

A new element instProperties is added to the eSpeed order data structure CFETI_ORDER_DESC. If non-zero this shall contain the same instrument properties that are provided in the market data stream for the traded instrument.

Pricing Method

The market data field CFETF_PRICING_METHOD has been introduced to specify the pricing mechanism for the instrument being traded. Enumerated values are provided to indicate the different methods.

Start Date

The market data field CFETF_START_DATE has been introduced to specify the start date for a REPO instrument.

Payment Date

The data field CFETF_PAYMENT_DATE is the date that counterparties must settle netted cash flows incurred during the life of a traded derivative contract.

Break Clause

The data field CFETF_BREAK_CLAUSE holds the date(s) during the life of the derivatives contract that it can be mutually agreed to close the contract at the then market rate.

Additional instrument state

A new state field value CFETI_STATE_CHECK_CREDIT has been introduced. This signifies that the agressor in the trade has given verbal instruction to trade rather than electronic and is subject to credit check in a giveup market.

Interpretation of price codes in bid and offer lists

A new attrribute of participant list entries, CFETI_STATE_CHECK_CREDIT is defined for bids and offers that are submitted by voice request rathen than electronic in a giveup market.

Three new attrribute of participant list entries, CFETI_PRICE_OPTION_1, CFETI_PRICE_OPTION_2 and CFETI_PRICE_OPTION_3 are defined and correspond directly to new market and order preferences. As with the preferences synonyms are provided for European REPOs to signify clearing preferences.

The data type CFETI_PRICECODE has been changed from unsigned char to unsigned int.

Extended Market and Order structures

The CFETI_ORDER_DESC structure has been extended to include contact name and contact telephone number. (For trade confirmations only).

The CFETI_ORDER_DESC structure has been extended to include a field for payment date. Added to hold the date that counterparties must settle netted cash flows.

The CFETI_ORDER_DESC structure has been extended to include CFETI_BREAK_CLAUSE, to hold date(s) during the life of the derivatives contract that it can be mutually agreed to close the contract at the then market rate.

The CFETI_ORDER_DESC structure has been modified such that the field repoEndDate is now renamed to endDate to represent either end date for a Repo or maturity date for an Interest Rate

Derivative.

Version 1.2.13

Classification String

A new market data field CFETF_INST_CLASSIFICATION has been introduced to carry the instrument classification string that is also shown in instrument query results.

Support for FXOptions

New market data fields CFETF_CUTOFF_TIME, CFETF_CUTOFF_TIME_REGION, CFETF_CONTRACT_DATE, CFETF_EXPIRY_DATE, CFETF_DELIVERY_DATE have been introduced to support FXOptions.

Extended Market and Order structures

The CFETI_ORDER_DESC structure has been extended to include the new order information type CFETI_ORDERINFO_FXOPTIONS_TRADE. If defined, the orderInfo field will contain either the CFETI FXOPTION TRADE DESC structure.

Version 1.2.12

Instrument Notify Message

Instrument notify messages can be sent to notify users of events, or information regarding a specific instrument or selection of instruments. The application will receive the CFETI_INSTRUMENT_NOTIFY call in its tradeSysCallback with a description of the instrument notification. Added countdownTime and the new instrument notify type CFETI_INSTRUMENT_MKT_EXPIRE to the Instrument Notify message.

Price type

A new market data field CFETI PRICETYPE CX SPREAD is introduced.

Energy Index Type

An additional market data field CFETF_ENERGY_INDEX_TYPE is introduced to indicate index type for North American Energy.

Future Cross Price

An additional market data field CFETF_FUTURE_CROSS_PRICE is introduced.

Link Instrument

An additional market data field CFETF_LINK_INSTRUMENT is introduced for odd lot businesses. This will have a structure of "trading_system_id:odd_lot_instrument_name" for example "29:instname_OL".

Extended Market and Order structures

The CFETI_ORDER_DESC structure has been extended to include the new order information type CFETI_ORDERINFO_ENERGY_TRADE. If defined, the orderInfo field will contain either the CFETI_ENERGY_TRADE_DESC structure.

Version 1.2.11

Additional price tiers

The number of available price tiers has been increased from 5 to 10. New bid and offer lists have been created for: CFETF_BID_LIST, CFETF_ASK_LIST, CFETF_BID, CFETF_ASK, CFETF_BID_SIZE, and CFETF_ASK_SIZE. In order to support trading at non-best prices, new buy and sell lists have been created for tiers 2 to 10 for; CFETF_BUY_LIST, CFETF_SELL_LIST, CFETF_BUY_SIZE, CFETF_SELL_SIZE, CFETF_TRADE_PRICE, CFETF_TRADE_SIZE, and CFETF_STATE. The number of actual tiers published may vary between businesses.

Instrument Classification

An additional market data field CFETF_INSTRUMENT_CLASSIFICATION is introduced to populate the property argument of the CFETIDecodeFieldExt interface. If connected to a name-giveup business, the property argument must be supplied with the value of the field id passed to the application connection callback to decode the participant list.

Interpretation of buy and sell lists

The participant description data structure CFETI_PARTICIPANT_DESC has been extended to include a new field CFETI_COUNTERPARTY_STATE defining the trading state of a participant. Valid states include CFETI_COUNTERPARTY_STATE_TRADABLE and CFETI_COUNTERPARTY_STATE_PRICE_NOT_AVAILABLE.

Extended Market and Order structures

The CFETI_MARKET_DESC and CFETI_ORDER_DESC structures have been extended to include the trading system id. These fields shall be populated when the market/order is delivered to the client.

The CFETI_ORDER_DESC structure has been extended to include a settlement method that specifies the clearinghouse used that may be defined in a trade confirmation. If defined, the settlementMethod field specifies shall contain this information.

The CFETI_ORDER_DESC structure has been extended to include the amount charged on trades if settled as name-giveup or clearing house. If defined, then the brokerage field shall contain this information.

The CFETI_ORDER_DESC structure has been extended to include the amount charged on trades if settled as name-giveup or clearing house. If defined, then the brokerage field shall contain this information.

CFETIDecodeFieldExt

A new interface CFETIDecodeFieldExt() has been added to the API. An extension of the existing CFETIDecodeField() interface, this interface takes an extra parameter to facilitate decoding of some market data fields.

Version 1.2.10

Hedge ratio

An additional market data field CFETF_HEDGE_RATIO is introduced to deduce the correct amount of instruments for the trade in an underlying instrument.

Conversion factor

An additional market data field CFETF_CONVERSION_FACTOR_RATIO is introduced to deduce the correct price for the trade in an underlying instrument.

Instrument settlement date

An additional market data field CFETF_INSTRUMENT_SETTLEMENT_DATE is introduced to indicate the settlement date for this instrument, when that settlement date is inconsistent with the general settlement date for instruments in that sector.

Version 1.2.9

Completion of instrument query

An instrument query result may be delivered in more than one call to the connection callback for large results. An additional call to the callback will now be made when all of the information has been delivered.

Version 1.2.8

Package contents

The packages available for Solaris have been extended to provide SparcWorks 5.0 support. Please refer to the C/C++ Application Program Interface: Reference Guide for full details.

Build instructions

The build instructions for Solaris applications have been modified – please refer to the C/C++ Application Program Interface: Reference Guide for full details.

Version 1.2.7

New command status codes

An additional command status code CFETI_TRADE_CONTROL_FLAGS_MODIFIED is introduced to indicate that a users trading permissions have been modified (e.g. bidding disabled).

An additional command status code CFETI_ACTION_PROHIBITED is introduced which is delivered as appropriate for market and order rejections.

New command codes

An additional command CFETI_CONNECTION_MODIFIED is added to indicate that the user's connection to a trading system has been modified as indicated by the corresponding command status code (e.g., CFETI_TRADE_CONTROL_FLAGS_MODIFIED).

Price type

Additional market data fields CFETF_PRICE_DEC_PLACES, CFETF_PRICE_MIN_DEC_PLACES, CFETF_SETTLEMENT_PRICE_DEC_PLACES, and CFETF_SETTLEMENT_PRICE_MIN_DEC_PLACES, are introduced to define the parameters of the new variable price type CFETI_PRICETYPE_DECIMAL_DVAR.

Extended Market and Order structures

The CFETI_ORDER_DESC structure has been extended to add a repo end date. If this field is zero then this is not defined. Otherwise it is the end date for the trade instrument (which must be definition be a REPO instrument).

The CFETI_ORDER_DESC structure has been extended to add an instrument identifier and instrument identifier type. If the type is zero, then the instrument id field is undefined. Otherwise it is the CUSIP or ISIN for the traded instrument, according to the corresponding value in the instrument id type field.

The CFETI_ORDER_DESC structure has been extended to include trade comments that may be defined in a trade confirmation. If the trade comments field is zero then the text of the status structure passed to the connection callback should be examined instead.

The CFETI_ORDER_DESC structure has been extended to include trade server specific information about a trade that may be defined in a trade confirmation. If the trade info type field is non-zero, then the tradeInfo field shall contain this information.

The CFETI_ORDER_DESC structure has been extended to include settlement type information that may be specified in a trade confirmation and in submitted orders.

Package contents

The package contents for Solaris and Win32 have been modified. Please refer to the C/C++ Application Program Interface: Reference Guide for full details.

Build instructions

The build instructions for Solaris applications have been modified – please refer to the C/C++ *Application Program Interface: Reference Guide* for full details.

Version 1.2.6

Version 1.2.4

New market data fields

Additional market data fields are introduced to describe the last bid and last offer prices. These are CFETF LAST BID and CFETF LAST ASK.

Alternate instrument

An additional market data field CFETF_ALT_INST_1 is introduced to name an alternate instrument that may also be subscribed to in conjunction to the one containing the field. For example, for a Basis instrument this shall be the name of the Future.

Price Type

An additional market data field CFETF_PRICETYPE is introduced to indicate the formatting that should be applied to prices for that instrument.

Price Separator

An additional market data field CFETF_PRICE_SEPARATOR is introduced to indicate the string used to separate prices in a spread.

Size Tick

An additional market data field CFETF SIZE TICK is introduced to indicate the tick size.

Minimum Size

An additional market data field CFETF_MINIMUM_SIZE is introduced to indicate the minimum tradable size.

Repos

An additional market data field CFETF_COLLATERAL is introduced to indicate the underlying security in a trade.

An additional market data field CFETF_COLLATERAL_ALL_IN_PRICE is introduced to indicate the market price adjusted for accrued interest.

An additional market data field CFETF_REPO_END_DATE is introduced to indicate the end date for a Repo.

An additional market data field CFETF_PRICE_TICK_RULES is introduced to specify rules for price increment. An enumeration: valid values are CFETI_FIXED, CFETI_USREPO1, and CFETI_BRADY1. The default is CFETI_FIXED.

Additional instrument state

An additional state CFETI_STATE_NON_TRADABLE is defined as well as a macro CFETI IS TRADABLE.

Extended Market and Order structures

The CFETI_MARKET_DESC structure has been extended to add a requestId field. This field is not currently used. The CFETI_ORDER_DESC data structure has been extended to add requestId and toPrice fields. These are not currently used. The CFETI_ORDER_DESC data structure has also been extended to add tradeSide, tradePrice and tradeSettlement fields that may be populated in a trade confirmation message.

Additional field in instrument query

An additional field is added to the instrument query results to return an instrument classification string.

Version 1.2.3

Market and Order Preferences

CFETI_MARKET_FIRM_PRICE has been replaced by CFETI_MARKET_LIMIT_PRICE (retaining the same value). To indicate that a market is a firm price, a new preference CFETI_MARKET_GOOD_TILL_CANCEL has been introduced.

Interpretation of price codes in bid and offer lists

The price attributes have been updated; CFETI_PRICE_GOOD_TILL_CANCEL replaces CFETI PRICE FIRM (retaining the same value) and CFETI PRICE LIMIT has been introduced.

Extended Market and Order structures

The CFETI_MARKET_DESC and CFETI_ORDER_DESC data structures have been extended to add a short code. The short code component allows the application to specify the name of a third party on whose behalf a trade is made. Not all trading systems support this facility.

Version 1.2.2

Build instructions

The eSpeed API now provides distinct filenames for static and dynamic libraries. The build instructions have therefore been modified. Please refer to the C/C++ Application Program Interface: Reference Guide for full details.

Version 1.2.1

Interpretation of buy and sell lists

The market data fields CFETF_BUY_LIST and CFETF_SELL_LIST when decoded by the CFETIDecodeField interface yield a list of participant descriptions similar to the bid and offer lists. The behavior in previous versions that presented a total for all of the trade participants is now dependent upon the trading system to which the user is connected.

Version 1.2.0

Application User Data

An application programmer may provide a facility to the application user to include user-specific data to submitted markets and orders. This is additional to the user data component of market and order structures provided to allow the application programmer to attach user data to the market or order. This data is returned to the application in subsequent responses for the affected market/order.

Trading Subsystem

Additional fields are added to the market and order structures that, if non-zero, indicate the trading sub-system handling a market or order. This field is ignored in initially submitted markets / orders. A market data field CFETF_SUBSYSTEM is introduced to identify the trading sub-system that handles the associated instrument.

New command status codes

New command status codes are introduced which are delivered as appropriate for market and order rejections or cancellation. These are CFETI_TRANSACTION_NOT_APPROVED, CFETI_TRANSACTION_DISAPPROVED, CFETI_TRADING_SUSPENDED and CFETI_INSTRUMENT_NOT_TRADEABLE.

Trading subsystem

Additional command status values indicate the state of the trading subsystem that is the source of the data for a set of instruments. All instruments that contain a matching trading subsystem field - CFETF_SUBSYSTEM - shall be affected.

Interpretation of price codes in bid and offer lists

The market data fields CFETF_BID_LIST_1 to CFETF_BID_LIST_5 and CFETF_ASK_LIST_1 to CFETF_ASK_LIST_5 contain a field priceCode for each participant when decoded using the CFETIDecodeField interface. This is defined to be a bit-mask that defines attributes about the price for each participant included. Attributes include firm price (CFETI_PRICE_FIRM) and all-ornone price (CFETI_PRICE_ALL_OR_NONE).

Version 1.1.6

Market and Order Preferences

When an application receives a market accepted or order queued notification from the trading system, preferences that were specified with that market or order may now be included in the market structure delivered to the application connection callback. These should be combined with any additional preferences when, for example, later canceling the market or order.

Instrument dates

Additional market data fields are introduced to describe the auction date and announcement date for the instrument. These are CFETF_AUCTION_DATE and CFETF_ANNOUNCEMENT_DATE.

Additional instrument state

An additional state $CFETI_STATE_NO_MARKET$ is defined as well as a macro CFETI IS NO MARKET.

Additional field in instrument query

An additional field is added to the instrument query results to return a unique instrument identifier (e.g. CUSIP or ISIN number).

Version 1.1.2

Clearing down of trades

If the amount traded is less than the original size the application shall also receive notification of the size of the corresponding market or order that was removed from the system when the trade was cleared (CFETI_MKT_CANCELLED or CFETI_ORDER_CANCELLED). The application shall also receive notification of a created market if the conditions described above are met.

Additional order preferences

Preferences are introduced to allow the application to specify whether the size in a submitted order is incremental (i.e. additional to orders already queued) or total (i.e. replaces existing order). These are CFETI_ORDER_SIZE_IS_INCREMENTAL and CFETI_ORDER_SIZE_IS_TOTAL respectively. If neither is specified the default is for the size to be incremental.

Version 1.1.0

Clearing down of trades

When a market or order is traded a trade confirmation is delivered to the applications trading system callback. This confirmation details the size of the original market or order and the actual amount that was traded. If the amount traded is less than the original size, and if the trading organization's

agreement with eSpeed, Inc., is to introduce a new market if a market or order is not completely filled, then the application shall also receive notification of a created market (CFETI_MARKET_CREATED). The market price introduced will be at the last price traded. The size will be the greater of the default market size for the instrument concerned and the amount not traded.

Additional order preferences

New preferences are introduced to allow orders to be submitted that should be traded at one or both of the current market price and current market size, overriding the price or size field in the supplied order data. These preferences are CFETF_TRADE_AT_MARKET_PRICE and CFETF_TRADE_AT_MARKET_SIZE respectively. (Note: if CFETF_TRADE_AT_MARKET_SIZE is indicated and the users single order limit is less than the current market size, then the amount traded will be the single order size limit).

Refresh of Markets and Orders

When an application successfully connects to a trading system a refresh of markets and orders for that user that are remaining on the system at the time of connection is automatically delivered to the application. (N.B. Such markets and orders will only exist on the system if the user had set the preferences CFETI_RETAIN_MKTS_ON_CLOSE and/or CFETI_RETAIN_ORDERS_ON_CLOSE for the previous connection to that trading system).

Instrument state

The market data field CFETF_TRANSACTION_CODE has been replaced by a new market data field CFETF_STATE. The state field is a bit-mask, which can be interrogated using macros provided to determine the current state of the instrument.

Trading details

Additional market data fields are introduced to describe trade price, trade size and trade participants. These are CFETF_BUY_PRICE, CFETF_SELL_PRICE, CFETF_BUY_SIZE, CFETF_SELL_SIZE, CFETF_BUY_LIST and CFETF_SELL_LIST.

Subscription Status

An application subscribing to market data for specific instruments may receive subscription status messages delivered to the trading system callback function. The command delivered to the callback will be CFETI_SUBSCRIBE_STATUS. The command status structure will contain status codes to indicate loss or recovery of a specific instrument (in which case the command data will indicate the instrument concerned) or loss or recovery of all market data (in which case the command data will indicate the trading system concerned).

CFETIVersion

A new interface CFETIVersion() has been added to the API. This interface returns a pointer to a character string that describes the library version against which the application was built.

Extended Market and Order structures

The CFETI_MARKET_DESC and CFETI_ORDER_DESC data structures have been extended to add user data components that will be returned to the application with the market or order details when commands related to those markets and orders are returned. An id field has also been added, but this is not currently used.

Market & Order Refresh

Applications may request refreshes of markets and orders by using the CFETIPostMessage() interface to post a CFETC_REFRESH command to a trading system to which it is connected. A refresh is automatically delivered when an application successfully connects to a trading system.

New error codes

Additional error codes are added to the list that can be returned by eSpeed interfaces given in Appendix A.

Additional fields supported by CFETIDecodeField

The market data fields CFETF_BUY_LIST and CFETF_SELL_LIST are added to the list of fields supported by the CFETIDecodeField interface.

Package contents

The package contents for Solaris and Win32 have been modified. Please refer to the C/C++ Application Program Interface: Reference Guide for full details.

Build instructions

The build instructions for Solaris applications have been modified. Please refer to the C/C++ Application Program Interface: Reference Guide for full details.