Options Symbology Initiative

June 23, 2008

Introduction

A group of options industry professionals created a plan to overhaul the symbology used in representing listed option contracts in data transmissions between market constituents. The plan was released for comment in May 1, 2006 and responses were due by August 29, 2006. Seven comment letters were received and responses were generated. The plan was updated to reflect changes resulting from the comments and approved by the OCC Board of Directors on December 5, 2006. Additional updates to the plan are the result of OSI Committee recommendations to provide clarification. Information regarding the Options Symbology Initiative (OSI) may be viewed at www.optionsclearing.com/symbology/.
Interested parties should take special note of the milestones and the associated dates.

Summary of Changes Version 1.7

1. Discussion regarding the consolidation of grandfathered Flex symbols with leading 7 or 8's has been added.

Purpose

Recommend an approach to eliminate the practice of representing listed options contracts with OPRA codes (tickers) and fractional strike prices by the end of November 2009. The document must provide sufficient background to inform the reader how OSI Committee members reached consensus for minimum data requirements. A recap of the mental exercise that OSI Committee members experienced is vital to framing the task at hand. Interested parties are urged to read the entire document prior to expressing their views on this topic.

Background

Today, many organizations that support trading in listed options are restricted in their ability to identify and process exchange listed option contracts. These organizations typically use a three to five alpha character representation. The first one to three characters identify the option root symbol and the remaining two alpha characters identify the expiration month, call/put indicator and strike price (IBMER = IBM May 2006 90 call). This method has been used for over 25 years and poses several limitations in today's marketplace. The limitation of three characters to represent the option root creates inconsistency with OTC securities and has resulted in the use of illogical identifiers in both the options and underlying securities markets. The month and call/put codes assume expiration occurs in the following sequential month and assumes a single expiration day. LEAP contracts have never been standardized under this methodology. Similarly, the introduction of exchange listed flexible contracts necessitated a different symbology to address these limitations. These limitations have fueled the proliferation of

one to three character root symbol designations needed to support the industry and has impacted the securities markets as a whole. In the last 15 years, the flex symbology has not found its way into mainstream processes in most firms and could be viewed as limiting the products growth. An additional strain has been introduced with the recent exchange listing of short dated options that expire up to four times during a single month. In summary, most market professionals agree that the need for additional symbols to identify listed option products will continue grow and that existing limitations will be magnified.

In July of 2005 the OCC Board of Directors[1] asked OCC staff to work with industry representatives in defining a reasonable timeframe to eliminate the use of OPRA codes in the listed options markets. OCC staff was also instructed to ensure that all option strike prices be represented in decimal format at the same time. Once a plan has been adopted the options exchanges and OCC will jointly coordinate a timeframe when all market participants must comply.

In August 2005, an OSI Committee was formed to develop a plan. Representatives from broker dealers, exchanges, vendors and OCC actively participated[2]. The OSI Committee was instructed to develop an implementation plan to bring the options industry into compliance and to include a definitive timeframe. The OCC Operations and Technical Roundtable infrastructures were used to validate ideas and to resolve controversial issues[3].

The following goals and objectives were identified:

- Provide documentation to trade, clear and settle listed options where all market participants utilize explicit data elements to identify option series.
- Represent all strike prices in decimal formats where the number of decimal places is equal to the trading increment of the underlying instrument. For example: Exchange listed equity options strike prices on NYSE stocks may be represented in pennies for certain corporate actions.
- Identify all listed products cleared by OCC that are affected by this change.
- Identify industry organizations that will be impacted and create a mechanism for communicating developments throughout the life of the project.
- Mandate a timeframe to force compliance upon all affected market participants.

[1] The OCC Board of Directors is comprised of representatives from nine broker dealers, five U.S. options exchanges, one public director and one OCC director.

[2] Organizations include: Automatic Data Processing Inc., American Stock Exchange, Bank of America, Boston Options Exchange, Chicago Board Options Exchange, Goldman Sachs, Interactive Brokers, International Securities Exchange, Merrill Lynch, Morgan Stanley, NYSE Group, Options Clearing Corp., Options Price Reporting Authority, Philadelphia Stock Exchange, Securities Industry Automation Corp. and the Securities Industry Association.

[3] The OCC Operations Roundtable is comprised of operations managers from OCC participant exchanges and Clearing Members. The OCC Technical Roundtable is comprised of IT professionals from OCC participant exchanges and Clearing Members.

The following benefits were identified:

- Decrease the number of errors in the front, middle and back office processes.
- Represent the vast majority of listed option contracts using the same symbol as the underlying security to reduce investor confusion.
- Reduce corporate action symbol conversions.
- Eliminate wrap symbols.
- Eliminate the need for LEAP rollover process.
- Reduce the frequency of coordination among exchanges for symbol elections.
- Support the growth in product listings through additional expiration events and more flexible strike price designations.

The following asset classes/option types will be impacted:

- Equity Options
- Index Options
- Yield Based Options
- Short Dated Options
- Flex Options

The security futures product symbology remains "as is".

The following industry organizations must be engaged and effective communication with these organizations is crucial.

- Options Price Reporting Authority (OPRA)
- Securities Industry Association (SIFMA)
- Consolidated Tape Authority (CTA)
- Options Linkage Authority (OLA)
- Depository Trust and Clearing Corporation (DTCC, NSCC, ACATS)
- Futures Industry Association (FIA)
- Risk Management Association (RMA)
- Financial Information Forum (FIF)
- International Securities Association for Institutional Trade Communication (ISITC)
- Options Operations Committee (OOC)
- Investment Company Institute (ICI)
- Customers

The OSI Committee spent a significant amount of time discussing the appropriate scope for this initiative. They contemplated a range of ideas from narrow to expansive. The narrow scope limited the requirements to addressing only the changes necessary to eliminate OPRA codes and "decimalize" strike prices. The expansive scope considered

providing flexibility for exchange product development into exotic and multi leg instruments. The OSI Committee is confident that the recommended standard provides some of the desired flexibility for product expansion in the listed option markets.

The first issue the OSI Committee addressed was to define minimum data elements necessary to represent the options contract without OPRA codes and with decimal strike prices. The OSI Committee spent nearly four months debating the inclusion of certain data elements and their relative sizes. The concepts of minimum data elements and minimum data element sizes reflect the fact that organizations have the freedom to choose how proprietary data is represented within their organization. The data requirements recommended by the OSI Committee represent a set of minimum standards to be used when transferring option contract information between two or more organizations. These data elements are described below in what has come to be called the Symbology Key. Each data element within the symbology key has been debated extensively within the OSI Committee. The arguments surrounding each data element have been replicated in this document. These arguments are intended to bring all market participants to a common understanding of how and why the OSI Committee came to the symbology key represented below. The OSI Committee also recognizes that once there is general agreement on the appropriate data elements needed to process listed options absent OPRA codes and with decimal strikes, the daunting task of approving an industry-wide implementation plan may begin.

Symbology key

Symbol	Yr	Mo	Day	C/P	Explicit Strike	Decimal
MSFT	06	03	18	C	00047	500

The symbology key represents minimum data requirements in the transmission of listed option contracts between exchanges, the clearinghouse and their constituents. The OSI Committee members recognize that the display of option contract information to end users may vary by organization as deemed appropriate.

Minimum field sizes

- Symbol[4] – 6 bytes
- Year – 2 bytes
- Month[5] – 2 bytes
- Day – 2 bytes
- Call/Put indicator[6] – 1 byte

[4] OPRA will support a five character symbol in a message formats.
[5] OPRA will continue to use one character alpha code to represent both the month and call/put indicator in all data transmissions.
[6] The call/put indicator is combined with the month code in all OPRA message formats.

Strike Dollar[7] – 5 bytes
Strike Decimal – 3 bytes
Total – 21 bytes when minimum values are adopted

The OSI Committee recommends that each of the symbology key data elements be placed in the logical order as described above for data transmissions. This was recommended by technical representatives to aide in problem resolution and analysis exercises.

Discussion on data requirements for each data element used to define a listed option contract

General

The notion of creating a unique identifier similar to the cusip methodology used in the cash markets was discussed at length. The cost and processing overhead associated with a central repository responsible for the maintenance and distribution of the unique identifier was considered prohibitive. The OSI Committee acknowledges the fact that the string of data used to define each unique option contract in the symbology key requires larger messages for data transmissions but smaller data storage requirements (all of the data elements must be stored somewhere even under an encoding structure). The OSI Committee further acknowledges the fact that organizations will design internal systems to suit their specific needs and desires.

Option Symbol

The goal of the OSI Committee regarding the option symbol was simple: Use the underlying security symbol to the greatest extent possible. The following asset classes and product types were considered:

- Equity Options
- Index Options
- Yield Based Options
- Short Dated Options
- Flex Options

The decision to support a six character minimum option symbol was based upon the desire to support OTC stocks and Flexible Options that undergo corporate events resulting in a change to the option contract deliverable component(s). Under the new methodology, a single option symbol will be used for all standard contracts delivering 100 shares or a consistent multiple of the cash settled index value with the same settlement calculation. For example: All MSFT contracts with identical terms (i.e.

[7] OPRA will support a total of six positions and a decimal indicator (total seven bytes).

delivering 100 shares that are American style and settle on the closing MSFT stock price at expiration) will use the MSFT symbol. Likewise, all S&P 500 index options with a 500 multiplier that are European style and settle on the opening (SET) price will use the SPX (or exchange designated) symbol. This will eliminate the practice of using unique symbols for special product designations such as LEAP, Short Dated Options, Weekly, Quarterly and wrap symbols used today because of limitations in the OPRA code methodology. This new philosophy whereby options with standard delivery components and non standard expiration dates can no longer be differentiated by a unique three character symbol but instead by the explicit expiration date (mm/dd/yy) must be assessed by each market constituent independently. Consequently, listed option contracts with different settlement terms (settle on open versus closing underlying values) will be traded cleared and settled using different option symbols. There were two primary reasons for this decision: 1. Differences in exercise rights and settlement value calculations are material and indeed different contracts. 2. The scope of the effort becomes unmanageable when considerations for all of the various components of option contracts are introduced[8]. The OSI Committee agreed that the number of non-standard symbols generated by this specific proposal was negligible.

The recommended symbology will ensure that the characters used to identify over 95% of listed option contracts will be common within the underlying security and familiar to the average investor.

The OSI Committee acknowledged the fact that certain corporate actions will result in non-standard deliverable share quantities comprised of a single security, multiple securities and/or cash. The industry practice of assigning a unique symbol for options carrying non-standard deliverable components will remain. If the resulting option contract continues to deliver standard underlying share quantities then the option symbol will not change unless the underlying symbol changes. In this case, the listed option symbol will be changed to coincide with the symbol used in the underlying market. In general, exchange and OCC staff will coordinate the timing of the adjustment to the option symbol with the underlying market symbol change to the greatest extent possible. All announcements by the listing markets regarding temporary changes to underlying the symbol will be handled on a case by case basis and will not likely result in a change to listed options. Corporate actions that result in non-standard deliverable components will be identified by adding a numeric value to the end of the pre-event symbol (MSFT becomes MSFT1). This naming convention highlights non standard deliverable option contracts to all interested parties. This convention also supports contracts that undergo multiple corporate actions. Once a corporate action symbol has been assigned, it will remain unchanged throughout the life of the contract. This holds for contracts that undergo any and all subsequent corporate actions.

[8] There are many components that differentiate option contracts from one another but the committee felt that the amount of non-standard symbols required to support these other instances is inconsequential at this time.

Example:

Stock ABCD undergoes a 2 for 1 stock split on June 1, 2006. All strike prices are halved, the deliverable remains 100 and the symbol is unchanged. On September 1, 2006 stock ABCD spins off company EFGH, 10 shares per 100 ABCD owned. On the market opening at ex-date all open interest in ABCD corp. is moved to symbol ABCD1 delivering 100 shares of ABCD and 10 shares of EFGH. **Option symbol ABCD1 = 100 ABCD + 10 EFGH.** Subsequently, ABCD and EFGH shares are each listed in the underlying cash market and their prices are used in the valuation of options ABCD1 respectively. The options exchanges list new option contracts for each underlying that deliver 100 shares using symbols ABCD and EFGH (assuming listing criteria is met). **Options symbols ABCD and EFGH begin trading (independently) and each delivers 100 shares of the corresponding stock upon exercise.** On December 1, 2006 ABCD undergoes a 3 for 2 stock split. Option contracts in ABCD and ABCD1 are affected. Contracts in ABCD become ABCD2 delivering 150 shares of underlying stock ABCD. **Option symbol ABCD2 = 150 ABCD.** Contracts in ABCD1 remain ABCD1 and deliver 150 shares ABCD and 10 shares EFGH. **Option symbol ABCD1 = 150 ABCD + 10 EFGH. The exchange will again list a new ABCD delivering 100 shares of ABCD stock upon exercise.** Historically, the open interest grows in the new 100 standard deliverable contract and wanes in the non-standard contracts. This method ensures the common underlying symbol will remain the primary trading symbol for the liquid option contracts.

Special Note: As of September 1, 2007 all listed options that undergo uneven stock split corporate actions will be subject to a new temporary policy[9]. The policy as stated in OCC information memo #23348 will remain in place until the scheduled implementation for decimal strike prices February 12, 2010 at which time it will revert back to the previous method.

The OSI Committee also agreed to support a non-standard symbology for listed Flex Options. The existing Flex symbology provides for the delineation of American versus European style exercise, settle on open versus closing index values and expiration day. The new symbology eliminates the need to identify the expiration day because it is now part of the options symbology key. The OSI Committee agreed to continue the industry practice of using numeric codes that preface the symbol on listed contracts for the same underlying that have different exercise terms (American/European) or settlement values (opening/closing).

[9] Search for OCC information memo number 23348 located at the OCC public web site http://www.optionsclearing.com/market/infomemos/info_memos_form.jsp

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Current Flex Symbology:

A.M. = settle on open, P.M. = settle on closing underlying values on expiration date.

- 1 = American/A.M.
- 2 = European/A.M.
- 3 = American/P.M.
- 4 = European/P.M.

The symbols are comprised of three components:

1. The first character is numeric and represents the exercise style and settlement value method.
2. The next one to three characters represents the alpha option class symbol.
3. The day of expiration[10].

3MSQ13 = American exercise, settle on the close on the 13th day of the expiration month.
2BA16 = European exercise, settle on open on the 16th day of the expiration month.

New Flex Symbology:

The new flex symbols will have two components:

1. The first character is numeric and represents the exercise style and settlement value method in the same manner as today.
2. The next one to five characters represents the alpha option class symbol.

The new symbol will not include the expiration day. The expiration month, day and year must be transmitted in all data communications for all listed option contracts.

Example:

1IBM = IBM listed Flex contract with *American* exercise and settles on the underlying index *opening* value on the day of expiration.
2IBM = IBM listed Flex contract with *European* exercise and settles on the underlying index *opening* value on the day of expiration.
3IBM = IBM listed Flex contract with *American* exercise and settles on the underlying index *closing* value on the day of expiration.
4IBM = IBM listed Flex contract with *European* exercise and settles on the underlying index *closing* value on the day of expiration.

[10] The industry already uses a separate two character month code to identify the expiring month for listed flex contracts.

Information regarding the expiring month, day and year will be transmitted in all data communications.

Special Note: There are a few Flex symbols that currently trade with a leading 7 or 8. These symbols are as a result of the grandfather clause of the cash dividend adjustment policy, the 10% rule changes (OCC Information Memo #24284 details this policy in full). Once these symbols expire they will not be renewed and the leading 7 or 8 will not be used. These symbols will be consolidated at the same time and in the same manner as standard flex symbols.

For Example:

7HOM30 – will be consolidated to 7HSOA.

Corporate actions for flex contracts that contain six character symbols prior to the event will replace the sixth character with the next available numeric value to ensure a unique symbol is achieved.

Example:

Pre-event flex symbol = 1ABCDE
Post-event flex symbol = 1ABCD1

Expiring Year

The OSI Committee recommended a 2 byte minimum data requirement to represent the option contracts expiring year in recognition of some OSI Committee members desire to minimize the amount of data transferred in high volume transaction environments. The OSI Committee discussed the fact that the majority of the market participants store the expiring year in a 4 byte format and would continue to do so. Furthermore, all OCC data transmissions for proprietary (positions) and non-proprietary (option series) data will continue to contain
a 4 byte year.

Expiring Month and Day

Both the month and day fields carry 2 bytes.

Call/Put indicator

The OSI Committee recommended a 1 byte field that will carry the values “c” or “p”. There was discussion that new values may be used if an exchange new product such as exotic options or multi-leg instruments required special processing. However, only the “c” or “p” values are considered for purposes of this document.

Strike Price

There was extensive discussion regarding representation of strike price amounts in decimal values. Several methods were considered. The method adopted by OPRA in 1999 depicts an eight character field with a floating decimal and an alpha indicator code. The OPRA method provides for a total of six digits in a strike price with any combination of digits to the left or right of the decimal place. While the flexibility offered in this method is appealing, the OSI Committee felt that each organization should be free to design this data element as desired. The establishment of minimum standard field sizes (5 to the left and 3 to the right) was recommended. The majority of the discussion concerned the appropriate minimum requirement for decimal places to the right. The OSI Committee chose to support three places to aid in the conversion of open contracts with strikes represented in eighths at the time of implementation. The flexibility afforded by this minimum standard does provide flexibility in the determination of and industry supported implementation plan.

The discussions continued and focused on the long term issue of how strike prices should be represented once all contracts carried in eighths have expired. The OSI Committee reached agreement that listed option strike prices should be represented in the same level of granularity (decimal places to the left and right of the decimal point) as the underlying instrument. As of February 2006, all listed options are cleared and settled within the range of four characters to the left of the decimal and three to right (three places to the right is only required for strike prices in eighths due to corporate events). The OSI Committee also discussed the fact that 99.9% of listed option underlying instruments trade in pennies. The conversion of listed contracts trading in eighth increments (from fractional to decimal representation) will be addressed in the implementation plan. In addition, the OSI Committee agreed to recommend that the practice of using multipliers to represent listed index options in whole dollar strike intervals (half point strike prices) be eliminated. This will eliminate the current discrepancy between the reported underlying price and strike price representation for these index products. Options exchanges that wish to list index contracts in decimal strike price increments may do so in accordance with their rules.

Other data elements considered and not included in the symbology key

The OSI Committee discussed inclusion of a field that would identify whether a contract was an option on a security or an option on a commodity. There was limited support for this concept and the idea that it might be expanded to identify other types of listed derivatives. The OSI Committee reached the consensus that certain data must be housed and accessed in the security master file. The designation of the appropriate regulatory governance or some other unique characteristic was viewed as one such data element. Futures contracts are not considered in scope for this initiative.

The OSI Committee also discussed the need for an American/European indicator as part of the symbology key. The OSI Committee determined that since 100% of listed stock options carry American style exercise rights and the vast majority of listed index options carry European exercise rights that the use of this indicator on every transaction was inefficient. The OSI Committee agreed to support the use of different option symbols for contracts with different exercise rights for the same underlying security or index.

The OSI Committee also discussed the Decimal/Fraction Indicator implemented as part of the industry wide decimalization project in the year 2000. This field was originally intended to delineate the securities that had been converted to trade in decimal increments throughout the phased implementation plan. The reader is reminded that there was a conscious decision to exclude listed option strike prices at that time. The fact that the underlying security trades in pennies while option strike prices are represented in eighths is the one of the primary reasons this project is necessary. Any gain or loss to position holders resulting from a corporate action where the strike price is rounded to the nearest eighth will be eliminated upon implementation of the initiative. The OSI Committee determined that there was no need to utilize this field in the recommended implementation strategy.

Conclusion

The OSI Committee recommends that the data elements identified in the symbology key be used in all data transmissions associated with the trading, clearance and settlement of exchange listed options. The OSI Committee also emphasizes the importance of representing option strike prices in the same format as the underlying instrument (decimal places to the left and right of the decimal point). Once these objectives have been accomplished, the trading of options will become more intuitive and less complicated for all market participants. OSI Committee members recommend industry participants create a budget item for this initiative in the fiscal years 2007, 2008, 2009 and 2010.

Implementation strategy

Overview

The OSI Committee recommends an implementation strategy with three primary phases. First, the exchanges and clearinghouse will develop record layouts that support both the new and old data formats. Second, a symbol consolidation strategy will be defined that mitigates operational risk and minimizes the number of consolidation events. Finally, industry testing will be conducted in an environment where both pre and post data conversion events are validated followed by the symbol consolidation strategy.

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The implementation of the Options Symbology Initiative will be phased in as follows:

- June 2008 – September 2009 - OCC and exchanges supply and accept both existing and OSI compliant data values in new record layouts
- June 2008 – Detailed test scripts for the scripted industry testing effort to begin September 2009 will be communicated to the OSI committee for comment (60 days).
- August 2008 – Final industry test scripts published.
- June 2008 - September 2009 – Market participants conduct internal testing utilizing production data received from the exchanges and OCC with internal and external clients. The symbol consolidation strategy will be published by December 1, 2008.
- September 2009 - January 2010 - Scripted industry testing of the new environment under OSI pre and post symbol consolidation.
- December 1, 2008 – Detailed consolidation strategy communicated to OSI Committee.
- February 12, 2010 - Mandatory cut-over for use of explicit data elements by all market participants. OPRA codes become obsolete and will be suppressed from all data interfaces on this date. *(Symbols will not be consolidated at this time but all explicit data elements must be used: See discussion below).*
- March 2010 – May 2010 – Execution of the symbol consolidation strategy that mitigates operational risk and ensures an efficient consolidation of all open interest. See the consolidation strategy section of this document.

June 2008 – September 2009: OCC and Exchange Supply and Accept Data Values in New Formats

OCC and the Options Exchanges will make OSI compliant data elements available for all existing inbound and outbound data feeds for all market constituents. OCC and the Options Exchanges have published independent strategies regarding validation or interrogation of inbound data elements that require new formats per the OSI plan by October 01, 2007. Each participant should work with each individual exchange and OCC for their specific implementation plans.

The data elements as defined in the symbology key (Appendix 1, below) may or may not be affected on every transaction type for a given exchange or OCC interface. The OSI compliant data values are currently available for many of the exchange and clearing interfaces (analysis should be well underway). During this time period, all market participants that interact with the exchanges and OCC in a machine readable format will have the necessary data available on a daily basis to execute internal testing strategies for all affected applications to be prepared for scripted testing in September 2009. **Market**

participants may choose to convert to OSI compliant data interfaces in advance of scripted industry testing for exchange and clearinghouse interfaces. Coordination with each exchange and OCC is required for early adopters.

Additionally, market participants should conduct internal testing to ensure all systems function properly in an environment where data is received in the formats identified in the OSI plan (Appendix 1, below). While the explicit options series data will be available on production data feeds, the option symbols will not be consolidated in production until March 2010. Scripted industry testing in a test environment will focus on the options symbol consolidation and will begin in September 2009. Market constituents are responsible to replicate their own new symbology environment prior to scripted testing on September 2009. During this time period (June 2008 – September 2009), exchange and OCC staff will make themselves available to discuss specific internal projects with individual market constituents. Market participants should complete internal testing by September 2009.

September 2009 – January 2010 – Scripted industry testing of new populated Inbound and Outbound data formats and Symbol Consolidations.

During this test period the exchanges and OCC will edit and pass through all data elements in compliance with the OSI symbology key and the new symbology method in a test environment. The test must mimic both pre and post symbol consolidation scenarios. All obsolete data values will be suppressed during this testing period. All market participants should be prepared to test their individual implementation strategies to assure compliance. The output data feeds to support this testing period should not change from the then current production data feeds (since 2008). A separate testing environment will be provided during this time and **dedicated test symbols will be utilized.** Industry approved test scripts, test symbol designations, pertinent dates and detailed testing requirements are in development as of the published date on this document. The OSI Committee Members have agreed to publish industry test scripts at least six months in advance.

February 12, 2010 - Mandatory cut-over for use of explicit data elements by all market participants

On February 12, 2010 all listed option market participants (OCC, Exchanges, Members, Customers, Vendors, Service Providers, OPRA, etc.) must be using the OSI compliant data elements for all data interfaces both inbound and outbound in a production environment. No symbol consolidations will take place at this time. **OPRA codes and fractional strike prices will be obsolete as of this date and will be suppressed from all data interfaces with the exchanges and clearinghouse. From this date forward all listed option strike prices will be represented and processed in decimal format from**

all market utilities. The expiration month day and year data elements will be passed and processed in all data interfaces between market participants and the exchanges and OCC. Market participants must be prepared to process multiple symbols for a given underlying security absent OPRA codes at this time. Prior to this date, all market participants had an opportunity during the previous year to implement system changes for data feeds from the exchanges and OCC.

Planned Symbol Consolidations

All market participants must be prepared to utilize OSI compliant data elements in all data interfaces by February 12, 2010. Execution of the symbol consolidation strategy will commence immediately. OSI Committee members have agreed to support a strategy that calls for the consolidation of a small set of listed option names followed by a quiet period that will include at least one standard expiration, one non standard expiration and one month-end processing cycle. The remaining symbols will be consolidated in as few iterations as practicable. OSI Committee members agreed to support a consolidation schedule that requires the consolidation of all products prior to the LEAP rollover events that are scheduled to occur in May 2010. The specific strategy will be defined in the symbol consolidation strategy currently scheduled to be approved and released by the OSI Committee by December 1, 2008.

Other pertinent information

This implementation strategy allows firms to install certain internal processes and interfaces into production once the exchange and OCC interfaces are changed in production beginning June 2008. Firm specific implementations must work properly under the existing and new symbol designations. The consolidation of symbols is currently scheduled after February 12, 2010.

Current Number of Delivery Classes as of April 2008

Equity = 3770
Index/Other = 238
Total = 4008

The Index option consolidation will include a shifting of the strike price into decimal formats for those products currently listed in half point strikes. For example:

ISE Integrated Oil and Gas Index (PMP) – Current Closing Price 260.29

Exchange traded strike value of 247.50
PMP EP/QP MAY 247.5

OCC holds Strike at 2475.00 to eliminate decimals.

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New Strike Value on all OCC outbound data transmissions after OSI is 247.50

All half point strike products will be included in the consolidation strategy and will be converted after the initial controlled group of symbols and FLEX products.

Though currently many products having undergone certain types of corporate actions contain strike prices denominated in eighths, the number of these products is expected to be drastically reduced if not eliminated by February 2010. There is a pending implementation of the new rounding methodology which will eliminate the need for creating strikes denominated in eighths. This change was implemented in August (2007)[11]. If so, the only products with strikes still in eighths in 2010 will be LEAPS contracts for existing products which had undergone this type of corporate action prior to August 2007. None-the-less, it is anticipated that a few products may carry strikes which after conversion will be 3 decimal places in length, i.e. 0.125 or 0.675.

The following assumptions are considered valid by OSI Committee members:

1. The OSI Committee will only identify target dates; each firm will be responsible to manage their own project.
2. All series within a given class will be consolidated. All affected symbols including corporate action symbols will be designated and communicated prior the consolidation dates.
3. All aspects of the trade cycle must be implemented together.
4. The consolidation event(s) must take place after end of day processing and before start of day processing.
5. Historical data requirements must be addressed by each market participant in a manner suitable to their own needs.
6. All market constituents are responsible to manage external interfaces with their clients.

Comments and the associated responses to this plan may be viewed at www.optionsclearing.com/symbology/

[11] Search for OCC information memo number 23348 located at the OCC public web site http://www.optionsclearing.com/market/infomemos/info_memos_form.jsp

Appendix 1

Symbology key

Symbol	Yr	Mo	Day	C/P	Explicit Strike	Decimal
MSFT	06	03	18	C	00047	500

The symbology key may vary for each organization but must support the following minimum data requirements in the transmission of listed option contracts between two or more organizations.

Minimum field sizes

- Symbol[12] – 6 bytes
- Year – 2 bytes
- Month[13] – 2 bytes
- Day – 2 bytes
- Call/Put indicator[14] – 1 byte
- Strike Dollar[15] – 5 bytes
- Strike Decimal – 3 bytes
- Total – 21 bytes when minimum values are adopted

The OSI Committee recommends that each of the symbology key data elements be placed in the logical order as described above. This was recommended by technical representatives to aide in problem resolution and analysis exercises.

[12] OPRA will support a five character symbol in all message formats.
[13] OPRA will continue to use one character alpha code to represent both the month and call/put indicator in all data transmissions.
[14] The call/put indicator is combined with the month code in all OPRA message formats.
[15] OPRA will support a total of six positions and a decimal indicator (total seven bytes).