

Options Symbology Committee Memorandum

To: Bob Linville and Deborah Mittleman, Service Bureau Co-Chairs of the Financial Information Forum

From: Symbology Committee Representatives

Date: November 27, 2006

Re: Comments received regarding the Options Symbology Implementation Plan.

Dear Mr. Linville and Ms. Mittleman,

Representatives of the Options Symbology Committee (the Committee) commend the members of the Financial Information Forum (FIF) for their thoughtful comments on the options symbology implementation plan published in May 2006. Many of the comments submitted were commensurate with the most difficult issues discussed in generating the implementation plan. The Committee would like to ensure that FIF members are aware that the implementation plan was developed by representatives from the following organizations and not at the sole discretion of the Options Clearing Corporation.

Representatives from ADP, SIA, SIAC, Merrill Lynch, Goldman Sachs, Interactive Brokers, Bank of America, Fortis/O'Connor and Co., Morgan Stanley, AMEX, BOX, CBOE, ISE, NYSE/Arca and PHLX were active participants in the generation of the options symbology implementation plan. In addition, the Committee has received support from many of the Senior Managers in the aforementioned group through the OCC Board of Directors. The committee representatives recognize that inclusion of representatives from the market data community prior to the publication of the plan would have been beneficial to the process.

The matter of message length was the primary topic of discussion during the committee meetings and the source of the majority of the comments. The data elements identified in the implementation plan, and their recommended sizes were the result of a desire to support the current listed products and some obvious potential new products such as fixed income, OTC and long-term contracts.

The Committee also recognized the inability to dictate specific data and technical requirements for the internal workings of independent organizations supporting various business models. Therefore, the recommendations set forth in the implementation plan will be used to determine the appropriate symbology for new and existing products by listing exchanges and the clearinghouse. Market constituents will be required to accept and deliver data subject to these recommendations in the exchange and clearing interfaces but are not subject to these requirements for internal processes. The Committee

recognized that many organizations may devise encoding mechanisms to reduce the size of the messages for internal systems used to support the trading and settlement of listed options.

The Committee did recognize the sensitivity associated with market data and agreed that the OPRA messages generated by the exchanges should deviate from the recommendations set forth in the plan. **The OPRA feed is the only instance in which the recommended data structure will deviate in the exchange interface and will not be supported in the clearing interface.**

The FIF originally recommended that the message length be limited to 16 characters for all interfaces. The Committee concluded that a sixteen character string cannot provide the desired benefits identified in the implementation plan and asked FIF representatives to support a 17 character data string for outbound exchange OPRA data feeds and a 21 character string for all other exchange and clearing interfaces. The Committee was informed on September 28, 2006 that FIF representatives have agreed to support a 17 character OPRA feed and a 21 character trading and settlement feed (see chart on next page).

OPRA EQUITY/INDEX OPTION SYMBOL CHANGE

	CURRENT SYMBOL	NEW SYMBOL
Security Symbol	Use 3 In 5 Position Alpha Field	5 Position Alpha Numeric ¹
Expiration Month	A = Jan Call, etc.	No Change
Expiration Date	Does Not Exist	2 Numeric
Year	1 Numeric	2 Numeric
Explicit Strike Price	8 Positions ²	7 Positions ³
Strike Price Code	A = 5, etc.	Goes Away

TOTAL POSITIONS

16

17

¹ Corporate action code follows the underlying symbol. For example, the first corporate action on IBM, 5 character symbol is "IBM1 space". If 5th position not available to indicate a corporate action due to 5 character underlying, there will be a bastardized symbol.

² 1 Position strike price denominator code and 7 position explicit strike price value.

³ 1 position strike price denominator code and 6 position explicit strike price value.

OPTIONS TRADING AND CLEARANCE DATA RECOMMENDATIONS

	OPTION SYMBOL
Security Symbol	6 Position Alpha Numeric
Expiration Month	2 Numeric
Expiration Day	2 Numeric
Year	2 Numeric
Call/Put Indicator	1 Alpha
Explicit Strike Price⁴	8 Positions

TOTAL POSITIONS

21

In direct response to the FIF comments regarding each recommended field size:

Symbol - The recommended symbol size of six characters was supported by the FIF during the security futures initiative in 1999. The Symbology Committee will support a 5 character recommendation in the OPRA data feed and a 6 character recommendation in all other aspects of the trading and settlement cycle.

Year - The one byte year limits the duration that listed options may be traded to 10 years. Flexible contracts may currently be listed out 10 years by several exchanges. The FIF has agreed to support a two character year field.

Month/call & put - The practice of using a single identifier to represent the value of multiple data points has contributed to the costly and error prone technical infrastructure necessary to maintain the current listed option product. There is nothing stopping organizations from using a single alpha character to represent the call/put indicator and the month of expiration. The Committee views the risk of doing this as low given current market conditions. OPRA has adopted this encoding mechanism for the delivery of market data over their proprietary feed and the Symbology Committee has supported their decision. **The exchange and clearing interfaces for all other aspects of the trading cycle will adhere to the recommended explicit data elements for call/put and month data values.**

Strike dollar – The need to support three digits to the right of the decimal was viewed as a critical requirement for the conversion period and the advent of sub-penny trading. The

⁴ The symbology committee has recommended organizations support a minimum of 5 places to the left and three places to the right of the decimal place for trading and clearing interfaces.

conversion of strike prices from eighths to decimals should not result in gains or losses to options investors. LEAPS contracts generally carry large open interest and therefore the dollar amounts would be significant. The topic of granularity was heavily discussed and the unanimous result was that option strike prices should be carried to the same level of granularity as the underlying security and therefore sub-pennies are appropriate. Given the three decimal requirement that leaves three integers for the strike according to the FIF proposal. The committee accepts the FIF recommendation for 7 character strike representation (6 numbers and a decimal locator code) for OPRA data feeds. The Symbology Committee stands by its recommendation of a five character integer and a three character decimal for the trading and clearing interfaces to ensure ETF and index options may be represented in true economic terms and support the listing of fixed income and OTC products.

Committee responses to the implementation questions are as follows:

Committee members are in unanimous agreement that the impact of this effort and the required resources are significant.

The following text that is depicted in italics is taken directly from the original FIF comment letter. The Symbology Committee responses are in normal blue colored font.

Additionally, the group identified the following questions related to system impact:

- *What are the bandwidth implications on real-time data feeds?*
The bandwidth, with regard to the clearing interface, will remain unchanged. The exchanges are in the process of determining the impact to various interfaces. OPRA is proposing a one byte increase to market data feeds.
- *What impact will the OCC Symbology change have on OPRA data? Will OPRA's 5 letter code be eliminated?* The alpha strike code will no longer be sent on the OPRA feed at the time of conversion. The month-call/put code will remain in use. The changes are depicted in the table on pages 2 and 3 in this document.
- *The new symbology should be standard across the industry for the complete options trade lifecycle. What steps will the OCC take so that the new symbology becomes a uniformly adopted across the trade lifecycle?* The exchanges and OCC have committed to adhere to the recommended standard with the exception of OPRA data feeds.
- *Option trades are reported on blue sheets today using OPRA codes. Should we expect some record layout changes from the Intermarket Surveillance Group (ISG)?* Yes.
- *Please clarify how historical data will be converted. What changes will be required for historical data processing?* Each organization must address this issue based upon individual requirements. This is not necessarily a departure from the maintenance required for historical data with corporate actions in the current environment.
- *How will order messaging interfaces change? Will updates be made to CMS and FIX specifications?* Order entry mechanisms will adhere to the committee recommendations.

- *Could you further elaborate on how corporate actions will be handled? For example, please explain how the following contracts would be designated at each phase of the scenario outlined:*

Stock ABCD pays a spin-off dividend of stock XYZ on June 1, 2006. The deliverable per contract becomes 100 ABCD and 100 XYZ (Symbol is ABCD1). Immediately after the spinoff, new options begin trading on both ABCD and XYZ (ABCD and XYZ begin trading). On September 1, 2006 stock ABCD pays a cash dividend of \$5 per share. Since the cash dividend represents more than 10% of the value of the ABCD, the deliverable per contract of ABCD becomes 100 ABCD and \$500 (ABCD becomes ABCD2). The deliverable of the original ABCD options (pre-spinoff) becomes 100 ABCD, 100 XYZ and \$500 (ABCD1 remains ABCD1). Also immediately after the cash dividend payment, new options are listed in ABCD that represent 100 ABCD (ABCD again). At this point, there are three different option contracts on ABCD that have the following deliverables: 1) 100 ABCD (ABCD), 2) 100 ABCD + \$500 (ABCD2) and 3) 100 ABCD + 100 XYZ + \$500 (ABCD1).

How would these three contracts be designated? Would it be ADCD, ABCD1 and ABCD2? (Yes ABCD = 100 ABCD, ABCD1 = 100 ABCD + 100 XYZ + \$500 and ABCD3 = 100 ABCD + \$500)

The questions regarding migration and implementation are depicted in italics; the answers appear in normal blue font.

What will be the phased in approached (i.e., by product; alpha, etc)? The Symbology 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 methodology. Second, industry testing in an environment where both methods are supported with live data is conducted. Finally, a conversion process will be defined that mitigates operational risk and minimizes the number of conversion events.

The conversion strategy parallels the one used in the decimalization effort whereby old and new data formats are available on every data transmission. This strategy implies that the conversion event is defined by eliminating old data elements. Record layouts and data definitions will not change on conversion date. The actual conversion plan should be recommended well in advance of scripted industry testing.

Some assumptions regarding implementation strategies have been put forth in the current implementation plan:

- All series within a given class will be converted. All affected symbols including corporate action symbols will be designated and communicated prior the conversion dates.
- New record layouts should be backward compatible and implemented at least six months prior to conversion. One record must carry all new data attributes and there is only one symbol designation.
- All aspects of the trade cycle must be converted together.

- The conversion must take place after end of day processing and before start of day processing.
- There are currently processing limitations to support a single conversion event.
- The conversion will begin with a small set of option classes followed by a quiet period that covers a standard expiration.
- The number of conversion events should be optimized with regard to operational capabilities.
- Coordination with the markets that trade the underlying instrument will be required.
- All market participants will operate in an environment where some exchange listed options are traded, cleared and settled absent OPRA codes and with decimal strikes while others are not.

How does the implementation of decimal strike prices take place as part of the symbology conversion? They occur at the same time.

How will OCC coordinate the implementation of the new symbology with other industry participants such as options markets (for order processing and execution reporting), market data vendors (for data distribution)? Representatives from organizations in both of these spaces will be invited to actively engage in the development of the detailed implementation plan through the committee structure currently in place.

Each market participant must analyze OCC's requirements and subsequently publish their requirements for downstream users such as service bureaus, trading systems, broker dealers and market data vendors of option market information. How will conversion deadlines take into account this sequential process? The symbology recommendations already have the support of the organizations identified on page one of this letter (many from the areas you mention). The three year implementation timeline is a direct result of this fact. FIF representatives should be sure to recognize that the exchange interfaces will be changing as well.

What is the fallback/recovery strategy if problems arise with the conversion? TBD – The decimalization strategy will be reviewed.

How will open order reconciliation work during the conversion? Each exchange will be responsible in publishing their requirements.

How will reporting of option trades pre-conversion and post conversion be handled? Will we have to maintain two formats to report option trade pre-conversion and those post-conversion? The committee requests clarification regarding this question.

Best regards,

Mark Baumgardner
Spokesperson for the Options Symbology Committee.