

Symbology Frequently Asked Questions – With Answers
December 2, 2008

The following frequently asked questions and the corresponding answers have been approved by a majority of the participating members of the Options Symbology Committee. Committee Member's are listed at:

<http://www.theocc.com/initiatives/symbology/default.jsp>

1. What is the Options Symbology Initiative (OSI)?
 - The OSI is a plan to overhaul the existing method of identifying exchange-listed options contracts to decrease the current limitations in today's marketplace. This will be accomplished with the elimination of OPRA codes and fractional strike price values. The new Symbology Key will contain explicit expiration dates (including day) and decimal strike price values. Conversion of option symbols into the base underlying symbol to create consistency is also included in the OSI plan.
2. Where can I find additional information regarding the Options Symbology Initiative?
 - All current information regarding the Options Symbology Initiative is located at <http://www.theocc.com/initiatives/symbology/default.jsp>. This includes links to all specific Exchange OSI websites containing up updated technical specifications.
3. Who developed the plan?
 - The plan was developed by a group of option industry professionals that are responsible in supporting the infrastructures from the business and technical areas from broker dealers, vendors, exchanges and the clearinghouse. Representatives from varying industry organizations were also involved. Participating Committee members may be viewed @ <http://www.theocc.com/initiatives/symbology/default.jsp>. The plan was published on The Options Clearing Corporations public web site for comment for 120 days. Exchange, clearinghouse and industry organization email distribution lists and press releases were used to disseminate information regarding the plan and the comment period.
4. Is it mandatory for all affected market participants to adhere to these OSI changes?
 - Yes, all affected market participants including Exchanges, Clearing Members, Vendors, the clearinghouse and additional participants must adhere to the OSI changes.

- Organizations that do not interface directly with the exchanges or clearinghouse should contact related parties to determine the impact to specific data interfaces.
5. Were there comments to the original OSI plan?
- Yes, 6 comment letters were received and are available at <http://www.theocc.com/initiatives/symbology/default.jsp>.
 - The plan was amended to reflect considerations for market data with regard to the sensitivity expressed in message sizes. Both the OSI plan and the OPRA specification for OSI reflect the use of a single alpha code to depict the expiration month and call/put code (as is done today).
6. What are the milestones associated with the OSI?

Milestones - Completed

- December 2006 - OSI Committee members and the OCC Board of Directors approve the OSI version 1.1
- March 2007 - Exchanges and OCC published new record layouts to support both old and new OSI formats for implementation in June 2008.
- August 2007 - OSI Committee members approve OSI plan version 1.3 that addresses the implementation strategy and schedule.
- October 2007 - OCC and Exchanges publish individual implementation plans for acceptance and validation of new data elements related to the June 2008 conversion date.
- June 2008 - OCC and Exchanges supply and accept OSI compliant data values in new record layouts for industry internal testing efforts. The data will be available on production data feeds only. Firms may use the remainder of the 2008 calendar year to conduct system readiness testing. Firms should work with each individual entity for their specific implementation plans.
- July 2008 – Detailed test scripts for the scripted industry testing effort to begin September 2009 scripted industry testing effort will be communicated to the OSI committee for a 30 day comment period.
- August 2008 – Final industry test scripts published

Milestones - Upcoming

- June 2008 - August 2009 - Market participants conduct internal testing of OSI compliant record layouts.

- December 1, 2008 – Industry wide symbol consolidation strategy communicated.
- September 2009 - January 2010 - Scripted industry testing of the new environment under OSI both pre and post symbol consolidation.
- February 12, 2010 - Mandatory cut over for use of explicit OSI data elements by all market participants. No symbol consolidations will be completed on this date.
- March 2010 – May 2010 Consolidation of all current symbols into their base symbols completed in the least number of cycles as defined by industry participants.

7. What is the new Symbology Key?

- Symbol – 6 bytes
- Year – 2 bytes
- Month – 2 bytes
- Day – 2 bytes
- Call/Put Indicator – 1 byte
- Strike Dollar – 5 bytes
- Strike Decimal – 3 bytes

8. Is there an example of how the series information will be communicated different from today?

	Symbol	OPRA Code	Put/Call	Series Contract Date	Strike Price
Old	APV	LZ	C	2007/12	122 4/8
New	AAPL	-----	C	07/12/22	122.50

9. Why is the new symbol so big (21 characters)?

- The size of the “symbol” was extensively debated prior to the first release of the plan and throughout the comment period (the OSI plan details the discussions within the committee. Committee members ultimately agreed that the concept of symbol and a string of data elements comprising a unique identifier for each option contract was in essence the same thing. The 21 character “symbol” resulted from discussions where the recommendations ranged from 9 characters to 35 characters. Market participants are reminded that the OSI defines the minimum data requirements when interfacing directly with options utilities (exchanges or the clearinghouse).

10. Aren't we taking a step backwards with a 2 character year requirement?

- The minimum year requirement was debated extensively and Committee members' agreed to compromise to this requirement based upon message size and throughput concerns that were

raised on a consistent basis. The technical specifications for many exchanges and the clearinghouse reveal the fact that many data interfaces will continue to require four character year data elements.

11. How will I differentiate between listed options contracts with identical deliverable securities that settle American style versus European style?
 - Listed option contracts with different exercise characteristics on the same underlying deliverable security or cash will carry unique symbols.

12. How will I differentiate between listed options contracts with identical deliverable securities that settle on the underlying opening settlement price versus the underlying closing settlement price?
 - Listed option contracts with different settlement price calculation methods on the same underlying deliverable security or cash will carry unique symbols.

13. Do I need to comply with OSI minimum data requirements in my internal systems?
 - No, Committee Members' recognized the fact that there is no way to control individual organizations decisions regarding proprietary software. Every market participant must determine the optimal solution given their specific business model.

14. Will market data be impacted by the OSI?
 - Yes, organizations that take direct feeds through the OPRA network will need to accept new record layouts in June 2008 as described in the Technical Specifications link (OPRA) at: <http://www.theocc.com/initiatives/symbology/default.jsp>
 - Organizations that use third party vendors must communicate directly with the market data vendor to determine the impact.

15. Since OPRA is using a shorter 18 character version of the Series Key is the industry trading under two sets of symbols?
 - No, there is only one symbol, but it is supported by multiple record layouts; the changes to the OPRA record formats to accommodate OSI were designed to minimize the impact to direct consumers of the OPRA data feeds. OPRA messages will utilize 18 characters to denote the symbology key between June 30, 2008 and February 12, 2010. After February 12, 2010 OPRA will utilize 17 characters to denote the symbology key. See the OPRA Specification for OSI at www.opradata.com/symbology for further details.

16. How will non-standard options be denoted?

- There is no special non-standard deliverable indicator envisioned under the OSI. The majority of the OSI committee members determined the requirement of an extra field for non-standard deliverables on every transmission would create extraneous overhead for a relatively small percentage of open interest.

17. How will corporate actions be handled?

- Non-standard deliverables that result from corporate actions will contain numeric values at the end of the symbol. Once a contract delivering non-standard shares or other delivery components is assigned a numeric value at the end of the root symbol, the numeric value should remain unchanged throughout the life of the contract.

18. Are DTCC products and services affected by OSI changes?

- Yes, the new option symbols and explicit data elements will affect how DTC participants pledge assets to OCC. Other DTCC services that will be affected will include ACATS and Payment Orders that support option premiums. Please refer to DTCC Important Notices for details regarding OSI changes.

19. How much time do I have?

- All internal applications should be coded and tested internally by September 2009. All market participants should create the appropriate testing environment(s) to conduct scripted industry testing beginning September 2009.

20. Will I be able to use OPRA codes after February 12, 2010?

- No, the exchanges and clearinghouse will no longer deliver the alpha codes for expiration month, call/put indicator or for strike price (reference question #15).

21. Am I required to operate in an environment absent OPRA codes, with validations on specific expiration day and with decimal strike prices?

- Yes, the exchange and clearing interfaces will validate on the new data elements prior the consolidation of symbols on February 12, 2010.

22. Are we undergoing a symbol conversion or a symbol consolidation after February 12, 2010?

- A symbol consolidation. The consolidation will differ from the current symbol conversions executed during certain corporate actions and LEAP™ rollover processes. The difference is that in the current conversion process there is a one to one relationship between the old and new symbol. Under the OSI consolidation process, many symbols will be collapsed into a single option root

symbol that is equal to the symbol used in the underlying securities markets.

23. How will I know what new symbol maps to the old symbol during the symbol consolidation event(s) in 2010?
- The mechanisms to communicate old and new symbols are currently in place for use in corporate action scenarios. These existing mechanisms will be used in the conversion strategy. Any new communication mechanism will be identified in the symbol conversion strategy scheduled for release December 1, 2008.
24. Will open interest be consolidated at the same time the symbols are consolidated?
- Yes
25. How will I maintain historical data bases during and after the symbol consolidation?
- Each organization is responsible to maintain its own databases as is currently done for corporate actions where the options symbol changes.
26. How will I differentiate between option contracts that carry standard expiration, LEAP™, quarterly and short dated options?
- Interrogation of the expiration day will be required to determine the actual expiration date.
27. When will sample DDS messages be available from OCC?
- There are mocked-up sample DDS messages available from OCC's Member Services department now. They can be contacted at 800-544-6091 or memberservices@theooc.com. System generated DDS messages will be available Q2 of 2008.