



**THE FOUNDATION
FOR SECURE
MARKETS**

ENCORE – Delta Position Limits
Reference Guide for Clearing Members

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Overview

Delta-based position limit exemptions allow participating firms to use delta position limits rather than standard position limits.

Please refer to individual exchange websites for specific rule language.

The Delta-Based Position Limit Exemption rule requires the options exchanges to collect delta position limit data from a subset of firms. OCC serves as an aggregator for this effort. In order to achieve this end, OCC receives the delta position limit data from participating firms, aggregates it into a single report, and makes it available to the exchanges. The ISG Technology Subgroup facilitates this effort among firms and exchanges.

OCC performs only basic validations (primarily on the format of the data) and returns records which do not pass the validations to the submitting firm so they can be resubmitted correctly the following business day. An optional Delta Position Limits File Acknowledgement message is available to submitters. Subscribers to this message receive a real time record count of the number of records received which passed FIXML validation.

At the end of each trading date, no later than 12:00 a.m. CT, delta participating firms send OCC their net delta positions grouped by underlying symbol. Firms only need to submit net delta figures when either their conventional or their standard options positions are over the contract limit and the firm has elected to apply delta to that position.

In addition, each firm reports for each aggregation unit the options contract equivalent of the net delta ("OCEND") of each position in the security where the firm is electing to delta hedge. The firm does not need to report the OCEND for the underlying security unless the firm exceeds the standard or conventional position limit on a contract basis.

All net delta position limit information provided by firms to exchanges is subject to review for potential position limit and reporting violations.

The cutoff for file submission to OCC is 12:00 a.m. CT. During overnight processing, an OCC batch job executes which collects the files submitted by the firms, parses the data into the expected record layout, performs basic validations, and then aggregates the data into a single report for exchange consumption. This report is available to the exchanges by 5:00 a.m. CT. Valid records are available on-line in ENCORE by means of an on-demand report. Firms may view their own records only.

During this overnight processing, any records which do not meet validations are not included in the aggregated file and a notification of each record is sent to the submitting firm (that elects to receive electronic notification). Rejected records are also available on-line in ENCORE by means of an on-demand report. The firm may correct these records and resubmit them the following business date. Corrections require the prior business date be provided. Exchanges do not receive notification of rejected records.

Delta Position Limit Data (to OCC), Acknowledgement, and Rejected Data (back to Firm)

The layout for the Delta Position Limit Data to OCC is available in “Appendix A – Net Delta File (from Firm to OCC)”. The layouts for the optional Acknowledgement message and the Rejected Data message are located in “Appendix B – Acknowledgement Message (From OCC to Firm)” and “Appendix C – Rejected Delta Position Limit Record (From OCC to Firm)”, respectively.

The accuracy of the data sent to OCC is the responsibility of the submitting firms. OCC performs some basic validations upon receiving the CM file:

- Data Type and FIXML values match the record layout.
- All required fields are populated for each record.
- OCC Clearing Member Number is a valid CM number in the Encore database or,
- Non Clearing Member Organization is in the Encore database as a valid NCO eligible for Delta Position Limit submission.
- Clearing Business Date (Position Effective Date) on the records is either the business date the file was submitted or the prior business date. These validations will be driven from the Encore Business Date and exchange holidays and OCC holidays will be excluded. If a record’s trade date is older than two business days, that record will be rejected. It is the responsibility of the firm to provide this data to the exchanges directly.
- A single Net Delta Quantity must be supplied as a Long (positive Net Delta) or Short quantity (negative Net Delta). If a non-zero Long **and** a non-zero Short quantity are supplied for a single record, the record is rejected.

If multiple files are submitted on a particular day from the same submitting firm, the latest file submission is processed and prior files are ignored.

The real time Acknowledgement message sent to the firm is a count of the valid Delta Position Limit records submitted which passed FIXML validation.

In the Rejected Delta Position Limit message, rejected records are returned to the firm “as-is”, meaning the data submitted is returned as it was sent, without error messages or any indication of the reason for rejection. It is the responsibility of the submitting firm to determine the source of errors and resubmit corrected data the following day, if desired. Corrected records should have a trade date of the previous day.

In the instance that the file received by OCC from a submitting firm has been corrupted or contains fundamental errors preventing OCC from opening, reading, and parsing the file, the file is not processed by OCC. OCC is not required to notify a submitting firm that their file is corrupt. If OCC’s Data Center discovers a corrupted file, they may attempt to contact the designated Technical Contact at the submitting firm. This is consistent with existing OCC policy.

If the file cannot be parsed it is not possible to return the individual FIXML Reject records to the submitting firm. Without these error records, the firm may not be aware that there was an issue with their data. The submitting firm must identify who should be contacted in the unlikely event a file must be rejected. This contact information should be provided to the submitting firm's designated OCC Representative.

Additionally, OCC does not verify that each participating firm has transmitted their file for a given day. It is the responsibility of the submitting firm to ensure that their file is transmitted.

On-demand reports in ENCORE display valid and rejected records. They are available once the aggregator file has been sent to the exchanges. Reasons for each rejection are provided in the on-demand report.

Each participating firm must coordinate transmission setup and testing through their OCC representative.

Explanation of Selected Data Fields

Clearing Business Date – Position Effective Date on the records may be either the business date the file was submitted or the prior business date.

Published Date – Date on which OCC generates the outbound file.

Model Type – The delta pricing model used by the submitting firm. There are two possible values for Model Type.

- **0** – The delta pricing model maintained and operated by the Options Clearing Corporation.
- **1** – An approved proprietary delta pricing model.

Aggregation Unit – The means to distinguish between different approved aggregation units within a firm. The value(s) provided will not be validated.

CRD (Central Registration Depository) is “a computerized database that contains information about most brokers, their representatives, and the firms they work for.” (from the SEC website: www.sec.gov/investor/brokers.htm)

Appendix A – Net Delta File (from Firm to OCC)

Below is the FIXML layout for the Net Delta file sent from participating firms to OCC.

Position Report – Delta Position Limit							
FIX Mapping					Data	Data Type	Sample Data
Tag#	Report Block	Component Block	Sub Comp. Block	Fields			
	PosRpt						
715				BizDt	Clearing Business Date (Position Effective Date)	LocalMkt Date	2007-07-19
724				ReqTyp	Request Type 6 = Delta Position	Int	6
1434				ModelTyp	Model Type 0 = Utility Provided Standard Model (OCC) 1 = Proprietary (User Supplied) Model	Int	1
	→	Pty					
448				ID	Firm Number	String	00005
452				R	Party Role 4 = Clearing Firm (Clearing Member) 7 = Entering Firm (Non-Clearing Member)	Int	4
	→	/Pty					
	→	Pty					
448				ID	Position Account Number (Aggregation Unit) *	String	123456789
452				R	Party Role 38 = Position Account	Int	38
	→	/Pty					
	→	Pty					
448				ID	CRD Number – Firm Identifying number *	String	123456
452				R	Party Role 82 = CRD Number	Int	82
	→	→	Sub				
523				ID	Firm Name *	String	Goldman
803				Typ	5 = Full Legal Name of Firm	Int	5
	→	→	/Sub				
	→	/Pty					

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Position Report – Delta Position Limit							
FIX Mapping					Data	Data Type	Sample Data
Tag#	Report Block	Component Block	Sub Comp. Block	Fields			
	→	Instrmt					
55				Sym	Symbol (Security Symbol)	String	GOOG
762				SubTyp	Symbol Type ETO = Exchange Traded Options OTC = Over the Counter Instrument CMB = Combined Position	String	ETO
	→	/Instrmt					
	→	Qty					
703				Typ	Quantity Type DLT = Net Delta Quantity	String	DLT
704				Long	Long Quantity (translates to positive Net Delta Value) **	Qty	100
705				Short	Short Quantity (translates to negative Net Delta Value) **	Qty	0
	→	/Qty					
	/PosRpt						

* Aggregation Unit, CRD Number and Firm Name are optional data. All other fields are considered required.

**Only a Long Quantity OR a Short Quantity is required. A non-zero Long Quantity value represents a positive Net Delta, while a non-zero Short Quantity value represents a negative Net Delta. If a Long and a Short quantity are supplied with non-zero values, the record will reject.

Sample Inbound Messages – Delta Position Limit

Clearing Member Submission

<FIXML>

```
<PosRpt BizDt="2007-07-19" ReqTyp="6" ModelTyp="1">
```

```
<Pty ID="00005" R="4"/>
```

```
<Pty ID="123456789" R="38"/>
```

```
<Pty ID="123456" R="82">
```

```
<Sub ID="Goldman" Typ="5"/>
```

```
</Pty>
```

```
<Instrmt Sym="GOOG" SubTyp="ETO"/>
```

```
<Qty Typ="DLT" Long="100"/>
```

```
</PosRpt>
```

</FIXML>

Non-Clearing Member Submission

<FIXML>

```
<PosRpt BizDt="2007-07-19" ReqTyp="6" ModelTyp="1">
```

```
<Pty ID="IAN" R="7"/>
```

```
<Pty ID="123456789" R="38"/>
```

```
<Pty ID="123456" R="82">
```

```
<Sub ID="Ian Industries" Typ="5"/>
```

```
</Pty>
```

```
<Instrmt Sym="IBM" SubTyp="CMB"/>
```

```
<Qty Typ="DLT" Short="500"/>
```

```
</PosRpt>
```

</FIXML>

Appendix B – Acknowledgement Message (From OCC to Firm)

The real time Delta Position Limit Acknowledgement message provides the total number of valid Delta Position Limit submissions received, excluding the header and footer.

NOTE: The Acknowledgement message indicates only the total number of messages that have passed FIXML validation. Processing of the Delta Position Limit records occurs during nightly processing, and records may be accepted or rejected during this processing.

DDS End of Day – Delta Position Limit Acknowledgement							
FIX Mapping					Data	Data Type	Sample Data
Tag#	Report Block	Component Block	Sub Comp. Block	Fields			
	DDSEOD Message						
715				BizDt	Clearing Business Date	LocalMkt Date	2014-05-20
				MsgTypeCode	DPL = Delta Position Limit	Char	DPL
				SchemaVer	FIX 4.4 = Version of FIX	String	FIX 4.4
				NoMessages Recvd	Number of Valid FIXML messages received	Integer	45
	/DDSEOD Message						

Sample Acknowledgement Message – Delta Position Limit

```
<FIXML>  
  <Batch>  
    <DDSEODMessage BizDt="2014-05-20" msgTypeCode="DPL" schemaVer="FIX 4.4" noMessagesRecvd="12"/>  
  </Batch>  
</FIXML>
```

Appendix C – Rejected Delta Position Limit Record (From OCC to Firm)

Below is the FIXML layout for the rejected records sent from OCC to the participating firm.

Position Report – Delta Position Limit Reject							
FIX Mapping					Data	Data Type	Sample Data
Tag#	Report Block	Component Block	Sub Comp. Block	Fields			
	PosRpt						
721				RptID	Unique Identifier of the Position	String	143771378
715				BizDt	Position Effective Date	LocalMkt Date	2007-07-19
724				ReqTyp	Request Type 6 = Delta Position	Int	6
1434				ModelTyp	Model Type 0 = Utility Provided Standard Model (OCC) 1 = Proprietary (User Supplied) Model	Int	29
	→	Pty					
448				ID	Firm Number	String	00005
452				R	Party Role 4 = Clearing Firm (Clearing Member) 7 = Entering Firm (Non-Clearing Member)	Int	4
	→	/Pty					
	→	Pty					
448				ID	Position Account Number (Aggregation Unit)	String	123456789
452				R	Party Role 38 = Position Account	Int	38
	→	/Pty					
	→	Pty					
448				ID	CRD Number – Firm Identifying number	String	123456
452				R	Party Role 82 = CRD Number	Int	82
	→	→	Sub				
523				ID	Firm Name	String	Goldman
803				Typ	5 = Full Legal Name of Firm	Int	5
	→	→	/Sub				

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Position Report – Delta Position Limit Reject

FIX Mapping					Data	Data Type	Sample Data
Tag#	Report Block	Component Block	Sub Comp. Block	Fields			
	→	/Pty					
	→	Instrmt					
55				Sym	Symbol	String	GOOG
762				SubTyp	ETO = Exchange Traded Options OTC = Over the Counter Instrument CMB = Combined Position	String	ETO
	→	/Instrmt					
	→	Qty					
703				Typ	Quantity Type DLT = Net Delta Quantity	String	DLT
704				Long	Long Quantity	Qty	100
705				Short	Short Quantity	Qty	500
	→	/Qty					
		/PosRpt					

Sample Reject Messages – Delta Position Limit

Sample reject message for Clearing Member:

```
<FIXML>
  <PosRpt RptID="123456789" BizDt="2007-07-19" ReqTyp="6" ModelTyp="BAD">
    <Pty ID="00005" R="4"/> [Reason for rejection: ModelTyp must = "OCC" or "PROP"]
    <Pty ID="123456789" R="38"/>
    <Pty ID="123456" R="82">
      <Sub ID="Goldman" Typ="5"/>
    </Pty>
    <Instrmt Sym="GOOG" SubTyp="ETO"/>
    <Qty Typ="DLT" Long="100"/>
  </PosRpt>
</FIXML>
```

Sample reject message for Non-Clearing Member:

```
<FIXML>
  <PosRpt RptID="123456789" BizDt="2007-07-19" ReqTyp="6" ModelTyp="PROP">
    <Pty ID="IAN" R="7"/>
    <Pty ID="123456789" R="38"/>
    <Pty ID="123456" R="82">
      <Sub ID="Ian Industries" Typ="5"/>
    </Pty>
    <Instrmt Sym="IBM" SubTyp="CMB"/>
    <Qty Typ="DLT" Long="100" Short="500"/> [Reason for rejection: Both Long and Short Qty provided]
  </PosRpt>
</FIXML>
```

Appendix D – Revision History

Version	Date	Author	Version Updates
1.4	7/12/2014	OCC	Update logo on cover page. Add Revision History. Add Acknowledgement file layout and sample message.
1.5	11/24/2014	OCC	Update Acknowledgement file to indicate acknowledgement transmission is created in real time rather than at end of day. Changed verbs to present tense.
1.6	11/25/2015	OCC	Remove DivDt tag from Delta Position Limit Reject layout and sample messages.
1.7	07/03/2018	OCC	Updated OCC logo on cover page.