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EURONEXT DERIVATIVES MARKETS – OPTIQ® RELEASE NOTE FOR FULL FUNCTIONAL SCOPE DELIVERY

Document type or subject

Detailed Information for delivery of services and facilities on Optiq for Derivatives Markets

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PREFACE

PURPOSE

This document describes the features and services, known limitations, as well as changes brought by the Optiq release. The content of the document is closely related to the “Euronext Derivatives – How the Market Works” document, which describes how Euronext Derivatives Markets are operated on Optiq.

ASSOCIATED DOCUMENTS

The following list identifies the associated documents, which either should be read in conjunction with this document, or which provide other relevant information for the users:

- Euronext Derivatives Markets – How The Market Works
- Euronext Markets – Optiq OEG Client Specifications – SBE Interface
- Euronext Markets – Optiq OEG Client Specifications – FIX 5.0 Interface
- Euronext Markets – Optiq MDG Client Specifications
- Euronext Derivatives Markets – Optiq Kinematics Specifications
- Euronext Markets – Optiq File Specification
- Euronext Markets – Optiq OEG Connectivity Specifications
- Euronext Markets – Optiq SBE Template Policy for the Migration of Derivatives Markets
- Optiq Technical Note SBE
- Euronext Optiq Phase 3: Derivatives Markets – OEG, ME and MDG Migration Guidelines

Clients are advised to also refer to the Euronext Rules and Regulations, trading procedure and annex documents for more details.

For the latest version of documentation please visit <http://www.euronext.com/optiq>

SUPPORT

Optiq Support Desk

For technical & functional assistance with the development and testing of Optiq, as well as for assistance with the use of the EUA environment, conformance, timeline and customer readiness checklist, clients should contact the Optiq Support Desk:

Tel: +33 1 70 48 25 55

Email: optiq@euronext.com

Customer Access Services

For support in obtaining access and connections to Euronext markets, Logical Accesses on Optiq (i.e. access and log-in credentials to Optiq OEG), clients should contract the Customer Access Services (CAS):

Tel: +33 1 85 14 85 89

Email: CAS@euronext.com

Operational Client Services

For any other client related questions clients should contact Operational Client Services (OCS):

Email: clientsupport@euronext.com

DOCUMENT REVISION HISTORY

For the details of this and previous updates of this document please refer to the [Appendix](#) at the end of this document.

Version	Change Description
1.3	Delivery of Full Functional Scope

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1. INTRODUCTION

Euronext announced the launch of its new generation technology program in May 2016, which is delivering improved customer experience through its new leading edge platform: Optiq®.

This document allows to follow the changes brought by the latest release of Optiq for Euronext Derivatives.

1.1 UPGRADE PURPOSE: EXCHANGE DRIVEN CHANGE DESCRIPTION

Optiq platform will be upgraded to its latest version in the context of the full migration of Derivatives markets on Optiq, including the Order Entry Gateway (OEG), Matching Engine (ME) and Market Data Gateway (MDG).

This upgrade is done specifically on the Derivatives Optiq segments: Equity Derivatives, Index Derivatives, Financial Derivatives, Commodities. Cash Optiq segments will not be modified with this upgrade.

This Release Note is related to the upgrade delivered on the 25th of October. The release delivered the full functional scope of Optiq Derivatives.

Three elements remain to be (re)activated on the test environment by the 30th of October (maintenance period):

- Delta Neutral Strategies
- Price Pro Prata
- Spontaneous Implied

This document aims to describe all functionalities and their known limitations so that clients are aware of them. While further fixes to address the known issues listed in this document can be expected, they are considered not blocking for conformance testing. The platform is available for clients to start their testing.

Euronext will focus on fixing all outstanding issues by beginning of November. Fixed issues will be communicated via Optiq Notice, referring to the last published Release Note.

1.2 HOW TO READ THIS DOCUMENT

This document describes the effective functional and operational elements through which the services described in “How the Market Works” are delivered on Optiq.

This document relies on the same structure as that of “How the Market Works” (HTMW) document.

Any known technical or functional limitations, caveats or outstanding defects of the delivered features are individually indicated in this document.

1.3 EXECUTIVE SUMMARY

1.3.1 Known Issues overview by Service

The following table – in relation with the structure of this note, provides an overview of the release.

Group of Services	Sub-Group of Services	Is the service managed in this version of Optiq?	# known issues
2. Associated Release Elements	SBE Templates	Delivered and available	0 (0)
2. Associated Release Elements	Load Balancing of the Contracts	Delivered and available	1
3. Trading Referential Management	3.1 Trading Instruments & Expiry Management	Delivered and available	6 (-8)
4. Trading Cycle: Patterns & Timetables	4.1 Optiq Management of the Trading Cycle	Delivered and available	0
4. Trading Cycle: Patterns & Timetables	4.2 Timetables files and messages	Delivered and available	2 (0)
4. Trading Cycle: Patterns & Timetables	4.3 Interruption of Trading services	Delivered and available	0
5. Trading On Optiq	5.1 Order Management Functionalities	Delivered and available	11 (+1)
5. Trading On Optiq	5.2 Trading Policies	Price Explicit Time (PET), Price Pro Rata (PPR) <i>activated on 30th</i>	0
5. Trading On Optiq	5.3 Price Discovery for Outright without Implied	Delivered and available	1 (-1)
5. Trading On Optiq	5.4 Continuous Trading for Outrights without Implied	Delivered and available	7 (+5)
5. Trading On Optiq	5.5 Trading on Strategies without Implied	Delivered and available	9 (0)
5. Trading On Optiq	5.6 Implied mechanisms: EDIM	Delivered and available	0
5. Trading On Optiq	5.7 Implied mechanisms: SIM	Delivered, <i>activated on the 30th</i>	0
5. Trading On Optiq	5.8 Optiq Ticktable Service (Referential and order validation)	Delivered and available	0
6. Trading Safeguard	6.1 Dynamic Collars Reference Price Origin Management (FV, FMP, OCP, Mid-BBO/FV)	Delivered and available	0 (0)
6. Trading Safeguard	6.2 Dynamic Collars Spread Management (AQS/Collars multipliers referential and collars size)	Delivered and available	1 (+1)
6. Trading Safeguard	6.3 Dynamic Collars for Strategies	Delivered and available	0 (0)
7. Automated Trade Confirmation	7.1 Trade Price Validation	Delivered and available	2 (0)
7. Automated Trade Confirmation	7.2 Future Spike Protection	Delivered and available	0 (0)
8. Trading Features and Services	8.1 Wholesales Services	Delivered and available	7 (-1)
8. Trading Features and Services	8.2 Request For Cross	Delivered and available (NEW)	1 (+1)

8. Trading Features and Services	8.3 Market On Close	Out of Scope	N/A
8. Trading Features and Services	Total Return Futures	Delivered and available (NEW)	3 (+3)
9. Market Making	9.1 Market Making Spread Obligation Framework (Reference Spread File and inclusion in Optiq of the data)	Delivered and available	0
9. Market Making	9.2 Market Makers Orders	Delivered and available	3 (+1)
9. Market Making	9.3 Market Maker Protection	Delivered and available	1 (-2)
10. Risk Management Services	10.1 Euronext RiskGuard/kill	Delivered but not ERG available	2 (+2)
10. Risk Management Services	10.2 Self Trade Prevention	Delivered and available (NEW)	1 (+1)
10. Risk Management Services	10.3 Cancel on Disconnect	Delivered and available	1 (+1)
10. Risk Management Services	10.4 Drop Copy	Delivered with <i>(orders)</i>	7 (+3)

1.3.2 Resolved Known Issues overview versus previous Release Note

Due to too number of identified issues since the previous Release Note, that are fixed in this release, comparison to previous Release Note is not relevant.

Customers should consider any of the issues not listed below as fixed in the test environment.

1.3.3 Know Issues detailed overview (65 Issues (+5))

Summary of the known issues is provided in the table below :

Scope Group of Function	Scope Sub-Group of function	Issue Description
3. Trading Referential Management	3.1 Trading Instruments & Expiry Management	Trading Unit mis-formatted for new strike (MDG)
3. Trading Referential Management	3.1 Trading Instruments & Expiry Management	[EFS: P-EUA StandingData file] [ContractEMMProperties and DerivativesParameters seem swapped around in the standing data files.
3. Trading Referential Management	3.1 Trading Instruments & Expiry Management	[Derivatives Standing Data] [Outright section present for the Underlying Contract record]
3. Trading Referential Management	3.1 Trading Instruments & Expiry Management	MarketData- derivatives Instrument TradingCode [Field derivativesInstrumentTradingCode is incomplete for strategies
3. Trading Referential Management	3.1 Trading Instruments & Expiry Management	Derivatives Standing Data File Equity Derivatives Strike Price filled in with 0 value for a dividend future
3. Trading Referential Management	3.1 Trading Instruments & Expiry Management	[DerivativesTickSizeFile] [Rounding issue in field TickSize in DerivativesTickTableFile]
4. Trading Cycle : Patterns & Timetables	4.2 Timetables files and messages	1005 Msg type - Session = 0 sent out for Inaccessible state at the end of the trading day
4. Trading Cycle : Patterns & Timetables	4.2 Timetables files and messages	EFS Timetable Files PhaseTime format issue

5. Trading On Optiq	5.1 Order Management Functionalities	MarketUpdate (1001) message - Wrong event time in MarketUpdate message after sending RFQ
5. Trading On Optiq	5.1 Order Management Functionalities	OrderId set to 0 for some Rejected Quote Order
5. Trading On Optiq	5.1 Order Management Functionalities	Incorrect FTI message with two empty fields and one with incorrect info
5. Trading On Optiq	5.1 Order Management Functionalities	NestedPartyID value condition to clarify for ClientIdentificationShortCode
5. Trading On Optiq	5.1 Order Management Functionalities	OEG FIX InstrumentSynchronizationList_U50 sent after Logon reject
5. Trading On Optiq	5.1 Order Management Functionalities	Rejection 2112 Account Type forbidden for the current OptiqSegment/EMM/MarketModel combination) for New SingleOrder with AccountType 14 or 15
5. Trading On Optiq	5.1 Order Management Functionalities	Incorrect Ack Qualifiers value sent on second MassCancel Ack
5. Trading On Optiq	5.1 Order Management Functionalities	[OEG FIX] ExecutionReport (8) sending NoLegs(555) set to 0
5. Trading On Optiq	5.1 Order Management Functionalities	[INT] QAIN2 : ME : LP Quotes with bid/Ask price AND qty set with NULL value are not rejected
5. Trading On Optiq	5.1 Order Management Functionalities	Incorrect Order Side Received in unsolicited cancellation (FIX)
5. Trading On Optiq	5.1 Order Management Functionalities	MDG - Price Update (1003) inconsistent sequential behaviour
5. Trading On Optiq	5.3 Price Discovery for Outright without Implieds	[PEUA 1003 Price Update Event Time incorrect number of digits 13 instead of 19 - 1566911056714 instead of 1566911056822241227]
5. Trading On Optiq	5.4 Continuous Trading for Outrights without Implied	[MDG] Empty value of the field " MIFIDPriceNotation" in Full Trade Information Message
5. Trading On Optiq	5.4 Continuous Trading for Outrights without Implied	Cash to Derivatives events Derivative Contract stays Suspended due to Underlying (Scenario mixed with Suspended by Mo)
5. Trading On Optiq	5.4 Continuous Trading for Outrights without Implied	Market update Execution Summary received after Market update Conventional Trade
5. Trading On Optiq	5.4 Continuous Trading for Outrights without Implied	Some Timestamp fields filled with 19700101-00:00:00.000000000 (FIX)
5. Trading On Optiq	5.4 Continuous Trading for Outrights without Implied	[MDG] [Issue with Trading Date Time]
5. Trading On Optiq	5.4 Continuous Trading for Outrights without Implied	MDG 1009 Statistics msg - no Last Price and no High/Low in case of TRF Conventional Trade - Provisional Price
5. Trading On Optiq	5.4 Continuous Trading for Outrights without Implied	Statistics not sent out after trade on newly created strike
5. Trading On Optiq	5.5 Trading on Strategies without Implied	Strategies that are suspended due to leg, do not take the most restrictive Order Entry Qualifier of the legs
5. Trading On Optiq	5.5 Trading on Strategies without Implied	Different sequence in sending Strategy trade when comparing between 1001 and 1004 msg types
5. Trading On Optiq	5.5 Trading on Strategies without Implied	Rounding of quantity for underlying leg is not ok for DN trades

5. Trading On Optiq	5.5 Trading on Strategies without Implied	Missing MDG Market update (1001) on Suspended Strategy market
5. Trading On Optiq	5.5 Trading on Strategies without Implied	No Reject message returned for incorrect strategy creation
5. Trading On Optiq	5.5 Trading on Strategies without Implied	Strategy standing data with blank Maturity Date
5. Trading On Optiq	5.5 Trading on Strategies without Implied	Strategy prices not respecting decimals and tick
5. Trading On Optiq	5.5 Trading on Strategies without Implied	In case of Strategy Trade (COB) - no 1009 Statistics msg sent out for Strategy - only 1009 for the legs
5. Trading On Optiq	5.5 Trading on Strategies without Implied	Straddle creation incorrectly rejected (error codes)
7. Automated Trade Confirmation	7.1 Trade Price Validation	TPV event interrupted by Market Status Change] [10-07-2019
7. Automated Trade Confirmation	7.1 Trade Price Validation	Orders cancelled due to TPV not showing correct last event
8. Trading Features and Services	8.1 Wholesales Facility	Bookstate Uncrossing is incorrectly sent out for EMM=4 - Derivatives Wholesale
8. Trading Features and Services	8.1 Wholesales Facility	[OEG][FIX][Wholesale] Missing RefTagID and SessionRejectReason in Reject(3)
8. Trading Features and Services	8.1 Wholesales Facility	In case of LiS Trade Cancellation, unexpected 1001 is sent out for EMM=4 for Trade Cancellation
8. Trading Features and Services	8.1 Wholesales Facility	In case of LiS Package Trade cancellation, Trade Type is not Trade Cancellation and MMT Modification Indicator is not CANC
8. Trading Features and Services	8.1 Wholesales Facility	In case of LiS Package Trade or Cancellation of this trade, MMT Transaction Category not populated with TPAC
8. Trading Features and Services	8.1 Wholesales Facility	In case of Trade Cancellation of LiS Package Trade, Trade Cancellations are incorrectly sent out for the leg
8. Trading Features and Services	8.1 Wholesales Facility	Incorrect error code provided for missing leg prices in Wholesale strategy
8. Trading Features and Services	8.2 Request For Cross	Tick size not respected for CrossOrders
8. Trading Features and Services	8.4 Total Return Future	In case of TRF trades, 1009 Statistics messages incorrectly flags second TRF Trade as the trade with Open Price instead of First Trade.
8. Trading Features and Services	8.4 Total Return Future	Collars are not checked for TRF Wholesales TAIC
8. Trading Features and Services	8.4 Total Return Future	TRF (SymbolIndex 41846*) - No 1003 Price Update - Price Type 7 Provisional Intraday from 9 AM CET every 15 sec (MDG)
9. Market Making	9.2 Market Makers Orders	FreeText in MM Sign in not sent to clearing
9. Market Making	9.2 Market Makers Orders	ExecutionWithinFirmShortcode is not present in the outbound Reject (07) message after a MM Sign In
9. Market Making	9.2 Market Makers Orders	Misleading error codes on reject of Quotes across contracts
9. Market Making	9.3 Market Maker Protection	MMP ack with updated current positions can be received before acks

10. Risk Management Services	10.1 Euronext RiskGuard	UserNotification OrderSizeLimit incorrect value
10. Risk Management Services	10.1 Euronext RiskGuard /Kill	UserNotification msg incorrect
10. Risk Management Services	10.2 Self Trade Prevention (STP)	FOK order are rejected with error code 6006 when stp is present on execution instruction (error code is incorrect)
10. Risk Management Services	10.3 Cancel on Disconnect	Missing ClOrdID in the sent cancel due to COD
10. Risk Management Services	10.4 Drop Copy	tag 539 says there are 2 NestedParties, but tag 524, 525, 538 appear only once (and in the wrong order w.r.t. tag 539] (Drop Copy)
10. Risk Management Services	10.4 Drop Copy	Value C provided in field NestedPartyIDSource (525).
10. Risk Management Services	10.4 Drop Copy	Order of fields must be correct between the First field (counter) and the second field of each repeating group (Drop Copy)
10. Risk Management Services	10.4 Drop Copy	Some Rejects generated without Client Order ID
10. Risk Management Services	10.4 Drop Copy	TRF : Tags missing in Drop Copy logs like Message price Notation
10. Risk Management Services	10.4 Drop Copy	Drop Copy] [Drop copy Set Up mismatch: session setup for Order Only, Drop copy sends out Trade messages as well
10. Risk Management Services	10.4 Drop Copy	Drop Copy- wrong price in tag 31

2. ASSOCIATED RELEASE ELEMENTS

2.1 SBE PROTOCOL

The deployment of Optiq in EUA is accompanied with the upgrade of SBE version 208.

The SBE templates (Order Entry and Market Data) published with the OEG and MDG specification in September 2019 is version 204. Previous SBE template on the test environment was SBE 206.

SBE templates version 206 and 208 are functionally transparent and compatible with 204.

Client are advised to Go-Live for Optiq Derivatives will be with version 204.

SBE templates are provided through EFS Service for each segment in their respective repositories as described below:

Files and Folders

Folder	File Name
/ Commodities / Current	OptiqOEG_<ENVIRONMENT>_SBETemplate_Commodities_YYYYMMDD.xml
	OptiqMDG_<ENVIRONMENT>_SBETemplate_Commodities_YYYYMMDD.xml
/ EquityDerivatives / Current	OptiqOEG_<ENVIRONMENT>_SBETemplate_EquityDerivatives_YYYYMMDD.xml
	OptiqMDG_<ENVIRONMENT>_SBETemplate_EquityDerivatives_YYYYMMDD.xml
/ IndexDerivatives / Current	OptiqOEG_<ENVIRONMENT>_SBETemplate_IndexDerivatives_YYYYMMDD.xml
	OptiqMDG_<ENVIRONMENT>_SBETemplate_IndexDerivatives_YYYYMMDD.xml
/ FinancialDerivatives / Current	OptiqOEG_<ENVIRONMENT>_SBETemplate_FinancialDerivatives_YYYYMMDD.xml
	OptiqMDG_<ENVIRONMENT>_SBETemplate_FinancialDerivatives_YYYYMMDD.xml

2.2 LOAD BALACING

Clients should note that the contracts' load balancing applied on the Equities segment of the test platform is not the target Production load balancing.

3. REFERENTIAL MANAGEMENT

3.1 TRADING INSTRUMENTS & EXPIRY MANAGEMENT

3.1.1 Release Details

Trading Instrument referential data is provided through ‘Derivatives Standing Data’ and ‘Open Interest’ files. Detailed specification of these files is available in the **Euronext Markets - Optiq File Specifications** document.

The files are accessible via both EFS Rest API and its Web Interface. Files are provided by Optiq Segment in their respective repositories as described below:

Files and Folders

Folder	File Name
/ Commodities / Current	OptiqMDG_<ENVIRONMENT>_DerivativesStandingDataFile_Commodities_YYYYMMDD.xml
	OptiqMDG_<ENVIRONMENT>_OpenInterestFile_Commodities_YYYYMMDD.xml
/ EquityDerivatives / Current	OptiqMDG_<ENVIRONMENT>_DerivativesStandingDataFile_EquityDerivatives_YYYYMMDD.xml
	OptiqMDG_<ENVIRONMENT>_OpenInterestFile_EquityDerivatives_YYYYMMDD.xml
/ IndexDerivatives / Current	OptiqMDG_<ENVIRONMENT>_DerivativesStandingDataFile_IndexDerivatives_YYYYMMDD.xml
	OptiqMDG_<ENVIRONMENT>_OpenInterestFile_IndexDerivatives_YYYYMMDD.xml
/ FinancialDerivatives / Current	OptiqMDG_<ENVIRONMENT>_DerivativesStandingDataFile_FinancialDerivatives_YYYYMMDD.xml
	OptiqMDG_<ENVIRONMENT>_OpenInterestFile_FinancialDerivatives_YYYYMMDD.xml

Standing Data (only) is also made available via the Market Data MDG feed through Market Data (MD) messages:

- Contract Standing Data (1012)
- Outright Standing Data (1014)

Clients should note that the data provided through the real-time MD messages contains the core trading data, while specific parameters for various facilities are provided only through files via a dedicated structure.

Example: RFC related parameters are available via the Standing Data files, and not within the core structure of the Contract referential data provided on both field and files. Parameters are provided with each functionality delivery when the functionality is turned on.

Changes in the referential data itself described in How the Market Works (e.g. changes to the AMR Code) are reflected in the content of both files and messages. Clients should refer to the related specifications for more details.

3.1.2 Service Limitations

The Service is fully delivered.

3.1.3 Known Defects

- ◆ Trading Unit mis-formatted for new strike (MDG)

- ◆ [EFS: P-EUA StandingData file] [ContractEMMProperties and DerivativesParameters seem swapped around in the standing data files.
- ◆ [Derivatives Standing Data] [Outright section present for the Underlying Contract record]
- ◆ MarketData- derivatives Instrument TradingCode [Field derivativesInstrumentTradingCode is incomplete for strategies
- ◆ Derivatives Standing Data File Equity Derivatives | Strike Price filled in with 0 value for a dividend future
- ◆ [DerivativesTickSizeFile] [Rounding issue in field TickSize in DerivativesTickTableFile]

4. TRADING PATTERNS & TIMETABLES

4.1 MAIN TRADING PHASES

All trading phases and states, with their respective rule, are supported by this release of Optiq:

- Call (Price Discovery),
- Continuous (Open Trading),
- Uncrossing,
- Reserved, Suspended, Halt (Interruption of Trading).

These phases and states are triggered via the timetable mechanism and trading interruption cases described in the **Euronext Derivatives Markets – Optiq Kinematics Specifications** document.

The structure of the associated Market Status Change (1005) message is described in the **Euronext Markets - Optiq MDG Client Specifications** document.

4.1.1 Service limitations

The service is fully delivered in this version of Optiq.

4.1.2 Known Defects

No known defect is embedded in the release.

4.2 THE OPTIQ TRADING PATTERNS: PREDEFINED SEQUENCE OF TRADING PHASES

Timetables are provided via referential data files and messages. The file description is provided in the **Euronext Markets - Optiq File Specifications** document.

Timetable files are available on EFS, and the list of folders and associated files is provided below:

Files and Folders

Folder	File Name
/ Commodities / Current	OptiqMDG_<ENVIRONMENT>_TimeTableFile_Commodities_YYYYMMDD.xml
/ EquityDerivatives / Current	OptiqMDG_<ENVIRONMENT>_TimeTableFile_EquityDerivatives_YYYYMMDD.xml
/ IndexDerivatives / Current	OptiqMDG_<ENVIRONMENT>_TimeTableFile_IndexDerivatives_YYYYMMDD.xml
/ FinancialDerivatives / Current	OptiqMDG_<ENVIRONMENT>_TimeTableFile_FinancialDerivatives_YYYYMMDD.xml

The Timetable ID is provided as the reference in Contract referential data on an EMM basis, allowing clients to identify for each Contract which timetable is used by the Matching Engine (ME) for the individual market mechanisms (i.e. COB, Wholesales, RFC).

Timetables are also available through messages on the Market Data Feed. The timetables are sent via the real-time market data **Timetable** (1003) message described in the **Euronext Markets - Optiq MDG Client**

Specifications document. Sending rules of the message are detailed in the specification document and illustrated in the **Euronext Derivatives Markets – Optiq Kinematics Specifications** document.

4.2.1 Service limitations

The service is fully delivered in this version of Optiq.

4.2.2 Known Defects

- ◆ 1005 Msg type - Session = 0 sent out for Inaccessible state at the end of the trading day
- ◆ EFS Timetable Files PhaseTime format issue

4.3 INTERRUPTION OF TRADING

States for Interruption of Trading (Reservation, Halt, Suspension) are available to be triggered according to Euronext Rulebook and Trading Procedures by the Euronext Market Services.

4.3.1 Service limitations

The service is fully delivered in this version of Optiq.

4.3.2 Known Defects

No known defects are reported for the service as delivered.

5. TRADING ON OPTIQ

5.1 ORDER MANAGEMENT FUNCTIONALITIES

Order types and Time in Force functionalities for order submission, supported by Optiq as described in How the Market Works, are fully delivered in this version of Optiq.

The associated structure of messages is described in **Euronext Markets – Optiq OEG Client Specifications – SBE Interface** and **Euronext Markets – Optiq OEG Client Specifications – FIX 5.0 Interface** documents. Associated dynamic interactions with Optiq are described in **Euronext Derivatives Markets – Optiq Kinematics Specifications** document.

5.1.1 Service limitations

The service is fully delivered in this version of Optiq.

5.1.2 Known Defects

- ◆ MarketUpdate (1001) message - Wrong event time in MarketUpdate message after sending RFQ
 - ◆ OrderId set to 0 for some Rejected Quote Order
 - ◆ Incorrect FTI message with two empty fields and one with incorrect info
 - ◆ NestedPartyID value condition to clarify for ClientIdentificationShortCode
 - ◆ OEG FIX | InstrumentSynchronizationList_U50 sent after Logon reject
 - ◆ Rejection 2112 Account Type forbidden for the current OptiqSegment/EMM/MarketModel combination) for New SingleOrder with AccountType 14 or 15
 - ◆ Incorrect Ack Qualifiers value sent on second MassCancel Ack
 - ◆ [OEG FIX] ExecutionReport (8) sending NoLegs(555) set to 0
 - ◆ Quotes with bid/Ask price AND qty set with NULL value are not rejected
 - ◆ Incorrect Order Side Received in unsolicited cancellation (FIX)
 - ◆ MDG - Price Update (1003) | inconsistent sequential behaviour
-

5.2 MARKET MECHANISMS & POLICIES

- Both expected market mechanisms (Price Discovery and Continuous trading) are available for trading as described in How the Market Works document.
 - Price Explicit Time (PET) matching policy is available for trading.
-

5.2.1 Service limitations

Price Pro-Rata (PPR) matching policy is not supported in this version of Optiq. It will be made available with the second functional release of Optiq in EUA in October.

5.2.2 Known Defects

No known defects are reported for the service delivered.

5.3 PRICE DISCOVERY FOR OUTRIGHTS WITHOUT IMPLIEDS

The Uncrossing mechanism is delivered as described in How the Market Works. Associated detailed interactions with Optiq are described in **Euronext Derivatives Markets – Optiq Kinematics** document.

5.3.1 Service limitations

The service is fully delivered in this version of Optiq.

5.3.2 Known Defects

- ◆ 1003 Price Update | Event Time incorrect number of digits 13 instead of 19 - 1566911056714 instead of 1566911056822241227
-

5.4 CONTINUOUS TRADING FOR OUTRIGHTS WITHOUT IMPLIEDS

The service is fully delivered, with PET matching policy supported. As such all contracts are set with PET as a matching policy parameter.

5.4.1 Service limitations

Price Pro-Rata (PPR) policy will be supported in a later delivery, as such no contract can be assigned the PPR policy. It will be made available with the second functional release of Optiq in EUA in October.

5.4.2 Known Defects

- ◆ Empty value of the field " MIFIDPriceNotation" in Full Trade Information Message
- ◆ Cash to Derivatives events : Derivative Contract stays Suspended due to Underlying (Scenario mixed with Suspended by Mo)
- ◆ Market update Execution Summary received after Market update Conventional Trade
- ◆ Some Timestamp fields filled with 19700101-00:00:00.000000000 (FIX)
- ◆ MDG FTI : Issue with Trading Date Time
- ◆ MDG 1009 Statistics msg - no Last Price and no High/Low in case of TRF Conventional Trade - Provisional Price
- ◆ Statistics not sent out after trade on newly created strike

5.5 TRADING ON STRATEGIES WITHOUT IMPLIEDS

Trading on Strategies without implied as described in How the Market Works document, is supported by this version of Optiq.

Detailed interaction with Optiq are described in **Euronext Derivatives Markets – Optiq Kinematics Specifications** document.

Structure of the messages, including the way to create strategies by Euronext clients, are described in **Euronext Markets – Optiq OEG Client Specifications – SBE Interface** and **Euronext Markets – Optiq OEG Client Specifications – FIX 5.0 Interface** documents.

5.5.1 Service limitations

The service is fully delivered in this version of Optiq.

5.5.2 Known Defects

- ◆ Strategies that are suspended due to leg, do not take the most restrictive Order Entry Qualifier of the legs
 - ◆ Different sequence in sending Strategy trade when comparing between 1001 and 1004 msg types
 - ◆ Rounding of quantity for underlying leg is not ok for DN trades
 - ◆ Missing MDG Market update (1001) on Suspended Strategy market
 - ◆ No Reject message returned for incorrect strategy creation in case attempted across contracts
 - ◆ Strategy standing data with blank Maturity Date (expired strategies)
 - ◆ Strategy prices not respecting decimals and tick
 - ◆ Straddle creation incorrectly rejected (error codes)
-

5.6 IMPLIED MECHANISMS: EVENT DRIVEN IMPLIED MATCHING (EDIM) MODEL

The service of Implied trading through the EDIM model as described in How the Market Works is embedded in the release.

Both triggers of implied prices generation (Priority order on a Strategy market and Request for Implied) are available as described in How the Market Works. Clients are advised to read in details the rule of the matching model described in the aforementioned document.

5.6.1 Service limitations

The service is fully delivered in this version of Optiq.

5.6.2 Known Defects

- ◆ [Implied] Incorrect Trade Qualifier sent on Trade Fill msgs

5.7 IMPLIED MECHANISMS: SPONTANEOUS IMPLIED MATCHING (SIM) MODEL

The service will be supported in a future version of Optiq. It will be made available with the second functional release of Optiq in EUA in October.

5.8 OPTIQ TICK TABLE MECHANISM

The Ticktable service is fully delivered in this version of Optiq, as described in How the Market Works.

Structure of the file is described in **Euronext Markets - Optiq File Specifications** document.

Tick tables files are available for clients on EFS within their repositories as described below:

Files and Folders

Folder	File Name
/ Commodities / Current	OptiqMDG_<ENVIRONMENT>_DerivativesTickSizeReferenitalFile_Commodities_YYYYMMDD.xml
/ EquityDerivatives / Current	OptiqMDG_<ENVIRONMENT>_DerivativesTickSizeReferenitalFile_EquityDerivatives_YYYYMMDD.xml
/ IndexDerivatives / Current	OptiqMDG_<ENVIRONMENT>_DerivativesTickSizeReferenitalFile_IndexDerivatives_YYYYMMDD.xml
/ FinancialDerivatives / Current	OptiqMDG_<ENVIRONMENT>_DerivativesTickSizeReferenitalFile_FinancialDerivatives_YYYYMMDD.xml

The rules of order acceptance according to the tick managed by Optiq are the ones described in How the Market Works. Ticks are not checked for matching.

5.8.1 Service limitations

The service is fully delivered in this version of Optiq.

5.8.2 Known Defects

- ◆ Negative price on Strategy market not checked against the tick.

5.9 DATA PROCESSING IN OPTIQ

The sequence in Market Data fits the logic for outrights described in How the Market Works.

The detailed interactions with Optiq are described in **Euronext Derivatives Markets – Optiq Kinematics Specifications** document.

5.9.1 Service limitations

The service is fully delivered in this version of Optiq.

5.9.2 Known Defects

- ◆ While the processing has no known defects, some field population issues are highlighted in section 5.1.2 of this document.

6. TRADING SAFEGUARDS

6.1 DYNAMIC COLLAR REFERENCE PRICE ORIGIN

Dynamic Collar logic is provided on a daily basis through referential data at contract level, through two Reference Spread fields – respectively for Call and Continuous phases. The fields are available in referential standing data to indicate to clients, which policy applies on which contract for which phase type.

The dynamic collars logic is taken into account by Optiq to build the DCRP according to the rules explained in How the Market Works.

6.1.1 Service limitations

The Pricing System feeding Optiq with the Fair Value configuration remains to be finalized for the fair value policies to be effective on the test environment.

6.1.2 Known Defects

- ◆ Dynamic collar reference price is incorrect on loading on Day+1

6.2 TRADING SAFEGUARD MANAGEMENT MODEL

Optiq supports all notion in relation with AQS, MQS and collars. Data is provided in the Reference Spreads file described in **Euronext Markets - Optiq File Specifications** document.

The reference spread tables are provided to members through the dedicated referential as follows:

Files and Folders

Folder	File Name
/ Commodities / Current	OptiqMDG_<ENVIRONMENT>_DerivativesReferenceSpreadsTables_Commodities_YYYYMMDD.xml
/ IndexDerivatives / Current	OptiqMDG_<ENVIRONMENT>_DerivativesReferenceSpreadsTables_IndexDerivatives_YYYYMMDD.xml
/ EquityDerivatives / Current	OptiqMDG_<ENVIRONMENT>_DerivativesReferenceSpreadsTables_EquityDerivatives_YYYYMMDD.xml
/ FinancialDerivatives/ Current	OptiqMDG_<ENVIRONMENT>_DerivativesReferenceSpreadsTables_FinancialDerivatives_YYYYMMDD.xml

Collars are computed according to the Reference Spread (APF) tables (as a multiplier of MSQ) and are set around the DCRP calculated as described in How the Market Works.

6.2.1 Service limitations

The Service is fully delivered.

6.2.2 Known Defects

- ◆ Reference Spread Table not taken into account for stock futures

6.3 DYNAMIC COLLARS FOR STRATEGIES

The service is delivered according to the rules described in the associated section of how the market works.

6.3.1 Service limitations

The Service is fully delivered.

6.3.2 Known Defects

No known defects are reported for the service as delivered.

7. AUTOMATED TRADE CONFIRMATION

7.1 TRADE PRICE VALIDATION (TPV)

The service is delivered as described in How the Market Works.

Detailed interactions with Optiq are described in **Euronext Derivatives Markets – Optiq Kinematics Specifications** document.

Structure of the messages are described in **Euronext Markets – Optiq OEG Client Specifications – SBE Interface** document.

7.1.1 Service limitations

The Service is fully delivered.

7.1.2 Known Defects

- ◆ TPV event interrupted by Market Status Change (pre)expiry event
- ◆ Orders cancelled due to TPV not showing correct last event

7.2 FUTURE SPIKE PROTECTION (FSP)

The service is fully delivered as described in How the Market Works and related specification documents :

- ◆ Market Data messages in relation with FSP : **Euronext Market – Optiq MDG Client Specifications**
- ◆ FSP parameters : **Euronext Markets - Optiq File Specifications**

7.2.1 Service limitations

The Service is delivered and all futures contract have FSP activated by default. FSP functionality cannot be lifted by EMS on request.

7.2.2 Known Defects

No known defects are reported for the service as delivered.

8. TRADING FEATURES & SERVICES

8.1 WHOLESALERS FACILITIES

The Wholesale facility is delivered in this version of Optiq, as described in How the Market Works.

Detailed structure of the involved dedicated messages is provided in in **Euronext Markets – Optiq OEG Client Specifications – SBE Interface** and **Euronext Markets – Optiq OEG Client Specifications – FIX 5.0 Interface documents**.

Associated interaction with Optiq are described in details in **Euronext Derivatives Markets – Optiq Kinematics Specifications** document.

8.1.1 Service limitations

Configuration of wholesales facility remains to be finalized to be effective on the test environment. Due to this any submissions of new wholesales order received by Optiq will be rejected with error code 1149 (Unknown Message)

8.1.2 Known Defects

- ◆ In case of LiS Trade Cancellation, unexpected 1001 is sent out for EMM=4 for Trade Cancellation
 - ◆ In case of LiS Package Trade cancellation, Trade Type is not Trade Cancellation and MMT Modification Indicator is not CANC
 - ◆ In case of LiS Package Trade or Cancellation of this trade, MMT Transaction Category not populated with TPAC
 - ◆ In case of Trade Cancellation of LiS Package Trade, Trade Cancellations are incorrectly sent out for the leg
 - ◆ Incorrect error code provided for missing leg prices in Wholesale strategy
 - ◆ Tick size not respected for CrossOrders
-

8.2 REQUEST FOR CROSS (RFC)

The service will be supported in Optiq for both versions of the algorithm. Description of the service is available in How the Market Works. Messaging sequences and Market Data dissemination (which differs depending on the algorithm) are detailed in technical specifications.

8.2.1 Service limitations

RFC on Strategies is turned off.

8.2.2 Known Defects

- ◆ Tick size not respected for CrossOrders

8.3 TOTAL RETURN FUTURES (TRF) SERVICE

The Contract and related specifics are available in the test environment. TRF behaviour description is available in How the Market Works. Messaging sequences and Market Data dissemination (which differs depending on the algorithm) are detailed in technical specifications.

8.3.1 Service limitations

Strategies on TRF are turned off.

8.3.2 Known Defects

- ◆ In case of TRF trades, 1009 Statistics messages incorrectly flags second TRF Trade as the trade with Open Price instead of First Trade.
- ◆ Collars are not checked for TRF Wholesales TAIC
- ◆ TRF (SymbolIndex 41846*) - No 1003 Price Update - Price Type 7 Provisional Intraday from 9 AM CET every 15 sec (MDG)

8.4 MARKET ON CLOSE (MOC) SERVICE

The service will be supported in a future version of Optiq.

9. MARKET MAKING

9.1 MARKET MAKING SPREAD OBLIGATION FRAMEWORK

The service is delivered as described in How the Market Works.

Data is provided in the Reference Spreads file described in **Euronext Markets - Optiq File Specifications**.

The tables are provided to members through the dedicated referential as follows:

Files and Folders

Folder	File Name
/ Commodities / Current	OptiqMDG_<ENVIRONMENT>_DerivativesReferenceSpreadsTables_Commodities_YYYYMMDD.xml
/ IndexDerivatives / Current	OptiqMDG_<ENVIRONMENT>_DerivativesReferenceSpreadsTables_IndexDerivatives_YYYYMMDD.xml
/ EquityDerivatives / Current	OptiqMDG_<ENVIRONMENT>_DerivativesReferenceSpreadsTables_EquityDerivatives_YYYYMMDD.xml
/ FinancialDerivatives / Current	OptiqMDG_<ENVIRONMENT>_DerivativesReferenceSpreadsTables_FinancialDerivatives_YYYYMMDD.xml

9.1.1 Service limitations

The Service is fully delivered.

9.1.2 Known Defects

No known defects are reported for the service as delivered.

9.2 MARKET MAKER ORDERS: QUOTES

Optiq access model manages the three types of functional access roles defined at Logical Access level. The Quotes messages are available for the Logical Accesses with functional role of Market Making. The Quotes functionality is managed by Optiq and is available for trading.

The processing rules of Market Making, including the Quotes message and MM sign-in, follow the logic described in How the Market Works.

Detailed interaction of Quotes and MM Sign-in messages in Optiq are described in **Euronext Derivatives Markets – Optiq Kinematics Specifications** document.

Structure of the messages are described in **Euronext Markets – Optiq OEG Client Specifications – SBE Interface** document.

9.2.1 Service limitations

The Service is fully delivered.

9.2.2 Known Defects

- ◆ FreeText in MM Sign in not sent to clearing

- ◆ ExecutionWithinFirmShortcode is not present in the outbound Reject (07) message after a MM Sign In
- ◆ OEG SBE | Misleading error code on Quote using different contracts

9.3 MARKET MAKER PROTECTION (MMP)

The service is delivered as described in How the Market Works.

Detailed interactions with Optiq are described in **Euronext Derivatives Markets – Optiq Kinematics Specifications** document.

Structure of the messages are described in **Euronext Markets – Optiq OEG Client Specifications – SBE Interface** document.

9.3.1 Service limitations

The Service is fully delivered.

9.3.2 Known Defects

- ◆ Incorrect Error code 9999 when rejecting a MMP Request if you are not set up as MM
- ◆ MMP ack with updated current positions is received before orders' acks

10. RISK MANAGEMENT SERVICES

10.1 EURONEXT RISKGUARD

The service will be supported in a future version of Optiq. It will be made available with the second functional release of Optiq in EUA in October.

10.2 SELF-TRADE PREVENTION (STP)

The service is fully supported as described in How the Market Works and the dedicated background document issued by Euronext. As a reminder, on Euronext Derivatives, STP is applicable to both LP and House accounts.

10.2.1 Service limitations

The service is fully delivered in this version of Optiq.

10.2.2 Known Defects

- ◆ FOK order are rejected with error code 6006 when STP is present on execution instruction (error code is incorrect)

10.3 CANCEL ON DISCONNECT

The service is delivered as described in How the Market Works.

Detailed interaction with Optiq and in depth details about Cancel on Disconnect mechanism are provided in the dedicated section of the **Euronext Markets – Optiq OEG Connectivity Specifications** document.

10.3.1 Service limitations

The service is fully delivered in this version of Optiq.

10.3.2 Known Defects

- ◆ Missing ClOrdID in the sent cancel due to COD

10.4 DROP COPY

The service is delivered according to the specification document published in September 2019 – with limitations due to defects.

10.4.1 Service limitations

The service is fully available.

10.4.2 Known Defects

- ◆ tag 539 says there are 2 NestedParties, but tag 524, 525, 538 appear only once (and in the wrong order w.r.t. tag 539] (Drop Copy)
- ◆ Value C provided in field NestedPartyIDSource (525).
- ◆ Order of fields must be correct between the First field (counter) and the second field of each repeating group (Drop Copy)
- ◆ Some Rejects generated without Client Order ID
- ◆ TRF : Tags missing in Drop Copy logs like Message price Notation
- ◆ Drop copy Set Up mismatch: session setup for Order Only, Drop copy sends out Trade messages as well
- ◆ Drop Copy- wrong price in tag 31

APPENDIX A: REVISION HISTORY

DOCUMENT HISTORY

REVISION NO.	DATE	AUTHOR	CHANGE DESCRIPTION
1.0	26 June 2019	Euronext	Roll out of the first software delivery of the Optiq trading chain for the Euronext Derivatives markets, with conformance scope.
1.1	22 July 2019	Euronext	Finalization of the configuration and start of the conformance testing period