

EURONEXT DERIVATIVES MARKETS**CHANGE SUMMARY: MDG DERIVATIVES SEGMENT CHANGE**

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INTRODUCTION

This document provides the summary of changes for the MDG Derivatives segment change, and the associated technical details. This change is being done as a preparatory step for migration of the Derivatives markets to Optiq.

Following this change Euronext Derivatives markets segments will be split as below:

- Equity Derivatives (EQD)
- Index Derivatives (IDD)
- Commodity Derivatives (COM)
- Financial Derivatives (FID)

This change in advance of Phase 3 implementation will simplify migration of the Derivatives markets to Optiq.

While no major impact is expected, customers are recommended to ensure that no adjustment is required to the list of Services and Channels they subscribe to via SFTI. For more information, please contact your Relationship Manager. SFTI packages, bandwidth and form are not impacted by this change.

This change will be transparent for the CCG, Drop copy & clearing, and will not result in any cancellation of overnight orders.

This summary outlines impacts for clients consuming MDG for Derivatives markets. For full details of impacts please review the updated MDG documentation.

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SUMMARY OF CHANGE

As was identified in the recent client consultation, to improve capacity and performance of each segment Euronext has adjusted the Optiq market segmentation of its Derivatives markets.

Following this change Euronext Derivatives markets segments split will change as follows:

Current Set of Segments

- *Financial Derivatives Options - 6*
- *Financial Derivatives Futures - 7*
- *Commodity Derivatives - 8*



Target Market Segmentation in Optiq

- Index Derivatives (IDD) - 11
- Equity Derivatives (EQD) - 12
- Financial Derivatives (FID) - 13
- Commodity Derivatives (COM) - 8

CCG submission of messages, Drop copy, commercial SFTI packages, bandwidth and form, as well as Clearing and Cash markets are not impacted by this change. The change will also not result in any cancellation of overnight orders.

MDG Channel Changes

Following the migration, MDG Set of Channels ID 18 and 28 will no longer be in use, and the associated contracts migrating to other sets of channels, will no longer have Unshaped channels.

This migration will impact contracts in several contract groups. The mapping of these groups to the changes in “set of channels” and “partitions” are provided in the table below.

Until full migration to Optiq, while multiple partitions are setup for Equity Derivatives and Index Derivatives segments use in target configuration, only one is currently in use. The partition assigned to a contract is always indicated in the standing data and should be retrieved from the standing data.

Contract Groups	Segment & Partitions					MDG Set of Channels		
	Change?	Current		New		Change?	Current	New
		Segment	Partition	Segment	Partition			
PO	✓	Options (6)	0	Equity Derivatives (12)	0	No	20	20
PF	✓	Futures (7)	0	Equity Derivatives (12)	0	✓	26	20
BO	✓	Options (6)	0	Equity Derivatives (12)	0	No	22	22
BF	✓	Futures (7)	0	Equity Derivatives (12)	0	✓	28	22
SF	✓	Futures (7)	1	Equity Derivatives (12)	0	✓	28	22
AO	✓	Options (6)	0 + 1	Equity Derivatives (12)	1	No	21	21
AF	✓	Futures (7)	0	Equity Derivatives (12)	1	✓	27	21
KF	✓	Futures (7)	1	Index Derivatives (11)	0	No	27	27
KO	✓	Options (6)	0	Index Derivatives (11)	0	No	24	24
FO	✓	Options (6)	0	Index Derivatives (11)	0	No	25	25
FF	✓	Futures (7)	1	Index Derivatives (11)	0	✓	28	25
MF	✓	Futures (7)	1	Index Derivatives (11)	0	✓	28	25
JF	✓	Futures (7)	1	Index Derivatives (11)	1	No	26	26
JO	✓	Options (6)	1	Index Derivatives (11)	1	No	23	23
YO + YF + RO + RF	No	Commodity Derivatives (8)	0	Commodity Derivatives (8)	0	No	16	16
ZO	✓	Options (6)	0	Financial Derivatives (13)	0	✓	18	17
ZF	✓	Futures (7)	0	Financial Derivatives (13)	0	No	17	17

Please note: The “MDG SET OF CHANNELS ID 19 – ATOMX (FOR FLEX CONTRACTS)” will be decommissioned. A dedicated communication will be issued with the associated dates shortly.

Please note that values for segments Futures and Options in SBE template and folders on EFS are not deprecated or removed, however these MDG set of channels will no longer be provided in MDG real-time data feed after implementation.

The details of channels available for each segment are provided in the *Optiq Market Data Feed configuration* documents made available for the External User Acceptance & Production Environments.

MDG SBE Template

- New MDG SBE template 7 reflecting changes to the Optiq segments is made available on the website and will be provided on the EFS. This template is being updated to align it with the MDG SBE templates already in use for the Cash markets (v1xx).
- Please note that the update of the template originally published will have the semanticVersion sets to 1.6.1 to help in differentiating the two releases of the template.
- SBE compatibility between Phase 1 and Phase 2 formats will not be maintained.

MDG SBE template v7 isn't backward compatible with previous MDG SBE templates. MDG SBE template v6 isn't forward compatible with template v7. Upon the date of implementation clients must migrate to use the new templates for the Derivatives markets.

	Next EUA (p-EUA)		Production	
Date	Before 20 February 2019	20 February 2019	Before 27 April 2019	27 April 2019
MDG SBE Template status	V6 or earlier only. V7 cannot be used	V7 only V6 and earlier versions can no longer be used	V6 or earlier only. V7 cannot be used	V7 only V6 and earlier versions can no longer be used

- Compatibility between Phase 2 format, provided with the MDG SBE template 7 and future Phase 3 format for Derivatives migration, where possible will be maintained. Updates of the target SBE for Phase 3 will be published with the rest of the technical documentation. The Step 3 technical documentation will identify where compatibility couldn't be maintained.
- The current MDG SBE template 6 contains messages that are for use by Cash markets only, and not required for the Derivatives markets. These messages in template 6 are in Phase 1 format and have been updated for use in Phase 2. These messages are removed in template version 7, and will be added back, in their used / target format for Phase 3 delivery.
- On EFS SBE template provided for the Derivatives Markets will be moved to be provided in the folders of individual segments. This change will allow to use SBE compatibility and flexibility of adjustment between segments to its full potential. The details of the folders, and file names following the migration are provided below in section "Files on EFS".
 - For implementation of Change in segments, and for Phase 3, content of the templates for all segments will be the same. In the future the templates for each segment will evolve separately.

MDG Real Time Messages

The summary below identifies changes that will be implemented for the change in segments. The full details of changes are provided in the updated MDG Client specifications document. These changes are reflected in the new MDG SBE template 7.

- With this change values in the field *Optiq Segment* will be modified as listed below. These values are added for use in **ContractStandingData** (1013) MDG messages.

*While this field is also used in **StandingData** (1017) MDG messages, the changes in values are not applicable for the Cash instruments and Indices.*

- New Optiq Segments are added:
 - ◆ 11 – Index Derivatives
 - ◆ 12 – Equity Derivatives
 - ◆ 13 – Financial Derivatives
- Existing Segments will no longer be used, and will be deprecated:
 - ◆ 6 – Financial Options
 - ◆ 7 – Financial Futures

The following changes are done to start harmonization with the behaviour delivered for Step 2 of Optiq (for Cash markets):

- In the field “Package Flags” of Market Data Package Header a change is applied for the Bits previously flagged “for future use”. Bits 10 to 15 remain for future use, and bits 7, 8, and 9 are now set with values as following:
 - ◆ Bit 7: set to 1 when in the packet there is a Start Of Snapshot (2101) message, 0 otherwise
 - ◆ Bit 8: set to 1 when in the packet there is an End Of Snapshot (2102) message, 0 otherwise
 - ◆ Bit 9: set to 1 when in the packet there is a Health Status (1103) message, Start Of Day (1101) message or End Of Day (1102) message, 0 otherwise
- Trade retransmission mechanism was changed, as follows:
 - ◆ Book level retransmission being provided with resubmission of the depth of the book on real-time channels in introduced.
 - ◆ **Technical Notification** (1106) message to be sent by each individual order book at the start and the end of the book retransmission.

As a result:

- New message Technical Notification (1106) is introduced
- The following messages have been removed and replaced as described below:
 - **Trade Retransmission Start** (1104) & **Trade Retransmission End** (1105) messages will no longer be used, and will be replaced by the mechanism as above, specifically
 - Start of retransmission is indicated by value 10 in field “Technical Notification Type” = “Trade Retransmission Start” (10)
 - End of retransmission is indicated by value 11 in field “Technical Notification Type” = “Trade Retransmission End” (11)
 - **Exchange Announcement** (1010) messages will no longer be sent out. For notification on Possible Aberrant Trades this notification will be replaced with a posting of messages on a “Short Messages” page of a Euronext website.
- The following messages have been temporarily removed as Cash messages, however the documentation may still refer in some instances to these messages that are still in place for Cash markets.
 - Standing Data (1007)
 - Order Update (1002)
 - Timetable (1006)
- The following updates were done to the message structure:

- ◆ In **FullTradeInformation** (1004) message:

- Presence of field ‘SymbolIndex’ changes from Mandatory to Optional
- Empty section *NotUsedGroup1* is added

Note on use of “Empty Sections”: In parallel of other projects and updates empty repeating sections are introduced for future use purpose at the end of some messages. While not immediately in use by Optiq, headers of these repeating sections must be present at the end of the messages; and for these empty repeating sections client must set the two fields of the header to zero (0).

- ◆ In **ContractStandingData** (1013) message:

- Presence of field *InstrumentTickSizeLong* changes from Mandatory to Optional
- SinceVersion attribute removed for fields *TickValueDecimals*; *PricingAlgorithm*; *UnderlyingSubType*; *MotherStockISIN*; *ReferenceFutureContractSecGrp*; *InstrumentTickSizeLong*

- ◆ In **StrategyStandingData** (1012) message, attribute *SinceVersion* is removed from fields *ContractSymbolIndex* and *CFI*

- For the field *EMM*:

- Length of the field is decreased, and value Not Applicable changes from 254 to 99
 - Value 50 – Societe Generale Systematic Internaliser is removed

- ◆ In **OutrightStandingData** (1014) message, attribute *SinceVersion* is removed from fields *UnderlyingInstrumentTradingCode* and *DaysToExpiry*

- For the field *EMM*:

- Length of the field is decreased, and value Not Applicable changes from 254 to 99
 - Value 50 – Societe Generale Systematic Internaliser is removed

- The following updates were done to the fields and values:

- ◆ In the field *ScheduledEvent* two values are renamed:

Value	Old name	New Name
1	Unhalt	Reopening
3	Uncrossing	Resumption of Trading

- ◆ In the field *StatusReason* :

- The following values are removed, as with migration to Optiq they are handled differently:

- 1 – Suspension by Market Operations
 - 2 – Unhalted by Market Operations
 - 3 – Suspension
 - 6 – Automatic Halting by Matching Engine
 - 17 – Uncrossing by Market Operations
 - 18 – Closing due to Suspended Underlying
 - 19 – Closing due to Halted Underlying

- The following values are renamed:

Value	Old name	New Name
7	Automatic Unhalting by Matching Engine	Automatic Reopening
20	Suspension Post creation	New Listing
21	Suspension due to underlying	Due to underlying
23	Technical Suspension	Technical

- ◆ In the field *MarketDataPriceType* value 11 – New Last Price is removed

- ◆ In the field *MarketDataUpdateType*:

- The following values are removed:

- 20 – New Bid SI
 - 21 – New Offer SI
 - 22 – Updated Bid SI
 - 23 – Updated Offer SI
 - 47 – SI Trade

- 62 – Hidden Quantity Trade
- 68 – Execution Summary Buy
- 69 – Execution Summary Sell
- SinceVersion attribute removed for values
 - 82 – Large in Scale Trade in basis points
 - 83 – Large in Scale Package Trade in basis points
 - 84 – Strategy Leg Large in Scale Trade in basis points
- The following values are added. These are for use by **Cash markets** and Derivatives clients are not required to incorporate them:
 - 79 – Guaranteed Cross Negotiated deal NLIQ
 - 80 – Guaranteed Cross Negotiated deal OILQ
 - 81 – Large in Scale Trade
- ◆ In the field *EMM*:
 - Length of the field is decreased, and value Not Applicable changes from 254 to 99
 - Value 50 – Societe Generale Systematic Internaliser is removed
- ◆ In the field *OrderEntryQualifier* value 4 – Order Entry Only is removed
- ◆ In the field *Trade Type*:
 - The following values are removed:
 - 21 – SI Trade
 - 35 – Hidden Quantity
 - SinceVersion attribute removed for values
 - 42 – Large in Scale Trade in basis points
 - 43 – Large in Scale Package Trade in basis points
 - 44 – Strategy Leg Large in Scale Trade in basis points
 - The following values are added in the field. These are for use by **Cash markets** and Derivatives clients are not required to incorporate them:
 - 37 – ETF-MTF NAV Trade (price in basis points)
 - 38 – ETF-MTF NAV Dark Trade (price in basis points)
 - 39 – Guaranteed Cross – Negotiated deal NLIQ (Liquid)
 - 40 – Guaranteed Cross – Negotiated deal OILQ (Illiquid)
- ◆ In the field *OptiqSegment* :
 - SinceVersion attribute is removed from value 10 – Trade Reporting and Publication
 - The following values are added:
 - 11 – Index Derivatives
 - 12 – Equity Derivatives
 - 13 – Financial Derivatives
- ◆ In the field *ExerciseStyle* the following values are added – currently for Cash use only:
 - 2 – Asian

- 3 – Bermudan
- 4 – Other
- ◆ In the field *TradeQualifier* - bit 1 is renamed from 'Opening Trade' to 'First Trade Price'
- ◆ Attribute *SinceVersion* = "5" is removed from the following fields:
 - *EfficientMMTTradingMode*
 - *EfficientMMTTransactionCategory*
 - *EfficientMMTNegotiationIndicator*
 - *EfficientMMTAgencyCrossTradeIndicator*
 - *EfficientMMTModificationIndicator*
 - *EfficientMMTBenchmarkIndicator*
 - *EfficientMMTSpecialDividendIndicator*
 - *EfficientMMTOffBookAutomatedIndicator*
 - *EfficientMMTContributiontoPrice*
 - *EfficientMMTAlgorithmicIndicator*
 - *EfficientMMTPublicationMode*
 - *EfficientMMTPostTradeDeferral*
 - *EfficientMMTDuplicativeIndicator*

Full details of changes are identified in the updated MDG Clients specifications document.

Files on EFS

- With this change values in the field *Optiq Segment* used in the Standing Data files will be modified as listed below. In the **DerivativesStandingDataFile** (9013) file:

- New Optiq Segments are added:

Segment:	EFS Folder:
11 – Index Derivatives	IndexDerivatives
12 – Equity Derivatives	EquityDerivatives
13 – Financial Derivatives	FinancialDerivatives

- Existing Segments will no longer be used, and will be deprecated:

- 6 – Financial Options
- 7 – Financial Futures

*As for the MDG messages, this field is also in use in the **CashStandingDataFile** (9007) file, however the modified values are not provided for Cash instruments and Indices.*

- Total Return Futures and Open Interest files will also move to target locations indicated below
- Change in folders and naming of the standing data files
 - Folders for the newly created segments will be added on EFS, and will contain the files for these segments

- The current and new locations and names of the files are listed in the tables below – where <ENVIRONMENT> in the name of the file should represent ‘p-EUA’ for Next EUA, ‘v-EUA’ for Current and Production.

Current Setup of Files and Folders

Folder	File Name
/ Options / Current	OptiqMDG_<ENVIRONMENT>_DerivativesStandingDataFile_Options_YYYYMMDD.xml
	OptiqMDG_<ENVIRONMENT>_OpenInterestFile_Options_YYYYMMDD.xml
/ Futures / Current	OptiqMDG_<ENVIRONMENT>_DerivativesStandingDataFile_Futures_YYYYMMDD.xml
	OptiqMDG_<ENVIRONMENT>_OpenInterestFile_Futures_YYYYMMDD.xml
	UTPDerivatives_<ENVIRONMENT>_TotalReturnFuturesConversionParameters_Futures_SOD_YYYYMMDD.csv
	UTPDerivatives_<ENVIRONMENT>_TotalReturnFuturesConversionParameters_Futures_SOD_YYYYMMDD.xml
	UTPDerivatives_<ENVIRONMENT>_TotalReturnFuturesConversionParameters_Futures_EOD_YYYYMMDD.csv
	UTPDerivatives_<ENVIRONMENT>_TotalReturnFuturesConversionParameters_Futures_EOD_YYYYMMDD.xml
/ Current	OptiqMDG_<ENVIRONMENT>_SBETemplate_ALL_YYYYMMDD.xml
	OptiqMDG_<ENVIRONMENT>_CashTickSizeReferentialFile_ALL_YYYYMMDD.xml
/ Commodities / Current	OptiqMDG_<ENVIRONMENT>_DerivativesStandingDataFile_Commodities_YYYYMMDD.xml
	OptiqMDG_<ENVIRONMENT>_OpenInterestFile_Commodities_YYYYMMDD.xml

Target (New) Setup of Existing Files and Folders

Folder	File Name	Notes
/ Commodities / Current	OptiqMDG_<ENVIRONMENT>_DerivativesStandingDataFile_Commodities_YYYYMMDD.xml	No Change
	OptiqMDG_<ENVIRONMENT>_CashTickSizeReferentialFile_Commodities_YYYYMMDD.xml	
	OptiqMDG_<ENVIRONMENT>_OpenInterestFile_Commodities_YYYYMMDD.xml	No Change
	OptiqMDG_<ENVIRONMENT>_SBETemplate_Commodities_YYYYMMDD.xml	
/ EquityDerivatives / Current	OptiqMDG_<ENVIRONMENT>_DerivativesStandingDataFile_EquityDerivatives_YYYYMMDD.xml	
	OptiqMDG_<ENVIRONMENT>_CashTickSizeReferentialFile_EquityDerivatives_YYYYMMDD.xml	
	OptiqMDG_<ENVIRONMENT>_OpenInterestFile_EquityDerivatives_YYYYMMDD.xml	
	OptiqMDG_<ENVIRONMENT>_SBETemplate_EquityDerivatives_YYYYMMDD.xml	
/ IndexDerivatives / Current	OptiqMDG_<ENVIRONMENT>_DerivativesStandingDataFile_IndexDerivatives_YYYYMMDD.xml	
	OptiqMDG_<ENVIRONMENT>_CashTickSizeReferentialFile_IndexDerivatives_YYYYMMDD.xml	
	OptiqMDG_<ENVIRONMENT>_OpenInterestFile_IndexDerivatives_YYYYMMDD.xml	
	OptiqMDG_<ENVIRONMENT>_SBETemplate_IndexDerivatives_YYYYMMDD.xml	
	UTPDerivatives_<ENVIRONMENT>_TotalReturnFuturesConversionParameters_IndexDerivatives_SOD_YYYYMMDD.csv	
	UTPDerivatives_<ENVIRONMENT>_TotalReturnFuturesConversionParameters_IndexDerivatives_SOD_YYYYMMDD.xml	
	UTPDerivatives_<ENVIRONMENT>_TotalReturnFuturesConversionParameters_IndexDerivatives_EOD_YYYYMMDD.csv	
	UTPDerivatives_<ENVIRONMENT>_TotalReturnFuturesConversionParameters_IndexDerivatives_EOD_YYYYMMDD.xml	
/ FinancialDerivatives / Current	OptiqMDG_<ENVIRONMENT>_DerivativesStandingDataFile_FinancialDerivatives_YYYYMMDD.xml	
	OptiqMDG_<ENVIRONMENT>_CashTickSizeReferentialFile_FinancialDerivatives_YYYYMMDD.xml	
	OptiqMDG_<ENVIRONMENT>_OpenInterestFile_FinancialDerivatives_YYYYMMDD.xml	
	OptiqMDG_<ENVIRONMENT>_SBETemplate_FinancialDerivatives_YYYYMMDD.xml	

Notes on Parallel Provision of Files on EFS

Starting Thursday 7 February 2019, a temporary Parallel provision of files on EFS will start in Next EUA. The files will be provided in the existing and target folders as described below.

	Next EUA (p-EUA)	Production
Internal Test	6 February 2019	6 April 2019
Parallel Provision of files on EFS	8 February to 19 February 2019	8 April to 26 April 2019
Implementation	20 February 2019	27 April 2019

Existing and Target Files on EFS during the testing phase

	SBE template	DerivativesStandingDataFile	Open Interest & Cash Tick sizes files**	TotalReturnFuturesConversionParameters
Parallel Provision of Files on EFS	<ul style="list-style-type: none"> V6 - in folder Current V7 – only in new folders (IXD, EQD, FID) until implementation date 	<ul style="list-style-type: none"> Folders for new segments (IXD, EQD, FID) contain standing data generated only once during the internal test in each environment. The Futures, Options and Commodities folder contains the standing data updated on a daily basis in V6 (Phase 1) format 	Provided in all folders	<p>In Next EUA</p> <ul style="list-style-type: none"> From 8 February 2019 - Provided in both Futures and Index Derivatives folders <p>In Production</p> <ul style="list-style-type: none"> Until 8 April 2019 will be available only in the Futures folder. From 8 April 2019 - Provided in both Futures and Index Derivatives folders
Implementation	V7 will be used upon Implementation date	Only new folders and Commodities contain the standing data updated on a daily basis in V7 format	Provided in new folders (IXD, EQD, FID) and Commodities	Provided only in Index Derivatives folder

** Cash tick size files in individual folders will be provided with target file names for the implementation in Next EUA, and will be available with correct names for parallel provision of files on EFS in Production

Details of Files and Folders for Parallel Provision of Files on EFS

Folder	File Name	Parallel Provision of Files on EFS	Post Implementation
/ Options / Current	DerivativesStandingDataFile	Available in V6 (Phase 1) format	Not available
	OpenInterestFile	Available during parallel provision of files	Not available
/ Futures / Current	DerivativesStandingDataFile	Available in V6 (Phase 1) format	Not available
	OpenInterestFile	Available during parallel provision of files	Not available

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	TotalReturnFuturesConversionParameters SOD (csv)	Available during parallel provision of files	Not available
	TotalReturnFuturesConversionParameters SOD (xml)	Available during parallel provision of files	Not available
	TotalReturnFuturesConversionParameters EOD (csv)	Available during parallel provision of files	Not available
	TotalReturnFuturesConversionParameters EOD (xml)	Available during parallel provision of files	Not available
/ Current	SBETemplate	V6 available – active version in Prod	Not available
	CashTickSizeReferentialFile	Available during parallel provision of files	Not available
/ Commodities / Current	DerivativesStandingDataFile	Available in V6 (Phase 1) format	Daily update file available in v7 format
	CashTickSizeReferentialFile	Available during parallel provision of files **	Available
	OpenInterestFile	Available during parallel provision of files	Available
	SBETemplate	V7 available, in parallel of what's in Current	V7 Available
/ EquityDerivatives / Current	DerivativesStandingDataFile	File of Internal test date available in V7	Daily update file available in v7 format
	CashTickSizeReferentialFile	Available during parallel provision of files **	Available
	OpenInterestFile	Available during parallel provision of files	Available
	SBETemplate	V7 made available	V7 Available
/ IndexDerivatives / Current	DerivativesStandingDataFile	File of Internal test date available in V7	Daily update file available in v7 format
	CashTickSizeReferentialFile	Available during parallel provision of files **	Available
	OpenInterestFile	Available during parallel provision of files	Available
	SBETemplate	V7 made available	V7 Available
	TotalReturnFuturesConversionParameters SOD (csv)	Available in this folder from 8 February in Next EUA & 8 April in Production	Available
	TotalReturnFuturesConversionParameters SOD (xml)	Available in this folder from 8 February in Next EUA & 8 April in Production	Available
	TotalReturnFuturesConversionParameters EOD (csv)	Available in this folder from 8 February in Next EUA & 8 April in Production	Available
	TotalReturnFuturesConversionParameters EOD (xml)	Available in this folder from 8 February in Next EUA & 8 April in Production	Available
/ FinancialDerivatives / Current	DerivativesStandingDataFile	File of Internal test date available in V7	Daily update file available in v7 format
	CashTickSizeReferentialFile	Available during parallel provision of files**	Available

OpenInterestFile	Available during parallel provision of files	Available
SBETemplate	V7 made available	V7 available

List of Known Technical Discrepancies

The list below is of discrepancies that may be present in files in Next EUA, and are expected to be resolved before implementation date of 20 February 2019.

File names:

- Cash tick size files in individual folders will be provided with target file names for the implementation in Next EUA, and will be available with correct names for parallel provision of files in Production

In Derivatives Standing Data File

- For Equity Derivatives and Index Derivatives – channel definition for partition 1 are not present in the file
- Values in fields <OrderTypeRules> and <AvailableWholesaleTradeType> are padded with 24 extra zeroes
- Values are not provided in field <InstrumentTickSize/>
- <MDGSetOfChannelsID> that are to be removed appear in the files:
 - For Financial Derivatives – ID 18 is appearing, with Name “not used 18”
 - For Index Derivatives – Id 28 is appearing, with Name “not used 28”

Notes on the Testing & Dress Rehearsal

Euronext will perform internal testing for validation implementation of the change. A notice will be issued for the associated closure of EUA platform. Clients are advised to disregard data received due to these tests.

The new segment folders on EFS will be created for the dates of Euronext internal testing ahead of the implementation of all other technical changes described in this document.

- Following internal tests, and until implementation dates in each environment, files, most notably Derivative Standing data, will be provided in parallel, in existing folders, representing legacy population of contracts within the segments, and the new folders on EFS, containing the population of contracts corresponding to the new segmentation
- Following implementation in each environment, and for the Dress Rehearsal in Production, files will be made available in the new segment folders only, representing the new population of contracts within segments.

Following implementation in the EUA environments clients are encouraged to test:

- connectivity to the new channel configuration,
- modifications to the messages and values,
- access to new folders and integration of new file names on EFS, as well as
- retrieval of the contracts standing data folder and file for their new target segments.

A Dress Rehearsal in Production will be done before the effective implementation, in which clients are highly recommended to participate. During the Dress Rehearsal clients will be able to download the new SBE templates in the target folder configuration, and confirm connection to the feeds with the new configuration.

Specifications Documents

MDG related specifications documents to reflect the changes for the new segmentation. These updated documents are based on content provided for Phase 1 implementation of MDG for Derivatives markets. These documents will also be updated at a later date, for implementation of Phase 3 for migrating of Derivatives markets to Optiq, and will be harmonized with the documentation currently provided for the Cash markets.

The following list identifies the documents updated for the new segmentation. Please note that the updated specifications are made for the existing setup of MDG delivered for new Segmentation, and may have differences compared to the documents currently in use by the Optiq Cash markets.

The Derivatives specifications will be harmonized with the Optiq documentation with migration to Optiq, and expected to be provided as a single document for Cash and Derivatives.

These documents either should be read in conjunction with this summary, or which provide other relevant information for the user to incorporate segmentation changes:

- InfoFlash: Change To The MDG Derivatives Segments – 21 January, 2019
- Euronext Cash & Derivatives Markets – Optiq MDG Client Specifications (for Derivatives Segment change)
- Euronext Cash & Derivatives Markets – Optiq File Client Specifications (for Derivatives Segment change)
- Optiq Market Data Feed configuration documents *for both EUA & PROD environments*
- TRF Conversion Parameters Files Specifications

Please note: EFS user guide is not impacted by this change.

Known issues with the published documents

1) Optiq MDG Client Specifications

- a. In several places listed below the links between section and the content, or page number of the field were not updated correctly. An “Error “messages is displayed instead. These links are provided as convenience and do not affect the content of the document. The associated pages that should have appeared in the document are listed below:
 - i. 5.1.6 Technical Notification (1106)
 1. Technical Notification Type – links to page 138
 2. Retransmission Start Time – links to page 132
 3. Retransmission End Time – links to page 132
 - ii. 5.2.1 Contract Standing Data (1013)
 1. Instrument Tick Size Long – links to page 104
- b. Summary of change for v1.6.0 identifies that flag “deprecated” is removed for the field *InstrumentTickSize*. This is not in effect for the MDG Segmentation change. Client can

continue using fields as currently. Associated alignment of the SBE template is done and noted below.

2) Optiq File Client Specifications

- a. In the Table of contents (page 5) – the page number to the section “Field Description” didn’t get updated correctly, and results in and Error messages in place of the page. Clients are advised that this section starts on page 33
- b. In section 2.5 FEED CONFIGURATION – the removed channels 18 and 28 are still present in table describing the feed configuration. For latest information on the Configuration of MDG channels clients are advised to use the dedicated documents provided for this.
- c. Values in field “MDGSetOfChannelsID” (on page 45) are missing the updates for this change that are listed below.
 - i. Values removed - still appear as values in the field
 - 18 = Currency Options
 - 28 = Equity and Index Futures Other
 - ii. Values Replaced in this change but not updated in the document:

In the Document	Should be
17 = Currency Futures	17 = Currency Derivatives
20 = Equity Options France	20 = Equity Derivatives France
21 = Equity Options Netherlands	21 = Equity Derivatives Netherlands
22 = Equity Options Other	22 = Equity Derivatives Other
25 = Index Options Other	25 = Index Derivatives Other
26 = Equity and Index Futures France	26 = Index Futures France
27 = Equity and Index Futures Netherlands	27 = Index Futures Netherlands

3) MDG SBE template – v7, semanticVersion 1.6.1

As a reminder – MDG SBE template compatibility in V7, with semanticVersion 1.6.1, released for the segmentation change isn’t maintained with previous template (V6).

The MDG SBE templates for the future milestone for full migration to Optiq will be compatible with the latest MDG SBE template (V1##) used by the Cash markets. To accommodate this structures, fields and values in MDG SBE template V7 are being added to align with the latest MDG SBE template V1##.

Table below provides the differences that may not have been identified in the update of MDG Client specifications, and are listed in the table below.

Impacted Section / Message	Field / Values	Description of Change & Impact
List of Character Types in SBE template, section <types>	<u>Removed Values</u> <type name="char14" length="14" primitiveType="char"/> <type name="char35" length="35" primitiveType="char"/> <type name="char37" length="37" primitiveType="char"/> <type name="char50" length="50" primitiveType="char"/> <type name="char55" length="55" primitiveType="char"/> <type name="char90" length="90" primitiveType="char"/> <type name="char140" length="140" primitiveType="char"/> <type name="char900" length="900" primitiveType="char"/>	No technical impact. Clean-up of Unused values.
	<u>Added Values</u> <type name="char13" length="13" primitiveType="char"/>	No technical impact – currently not yet in use.

	<type name="char32" length="32" primitiveType="char"/>	Added values for alignment with MDG SBE Cash (V1##) template in target of Phase 3.
	<p><u>Added a new enum section</u></p> <pre><enum name="TechnicalNotificationType_enum" encodingType="uint8"> <validValue name="Instrument_Book_Retransmission_End">1</validValue> <validValue name="Trade_Retransmission_Start">10</validValue> <validValue name="Trade_Retransmission_End">11</validValue> </enum></pre>	Type added for management of new message Technical Notification, in line with specifications and change summary.
	<p><u>In enum ScheduledEvent_enum renamed values</u></p> <pre><validValue name="Unhalt">1</validValue> renamed as Reopening <validValue name="Uncrossing">3</validValue> renamed as Resumption_of_trading</pre>	No technical impact. Alignment of values currently used only on Cash markets
	<p><u>In enum ScheduledEvent_enum added values</u></p> <pre><validValue name="Suspension">12</validValue></pre>	No technical impact – currently not yet in use. Added values for alignment with MDG SBE Cash (V1##) template in target of Phase 3.
	<p><u>In enum name="StatusReason_enum removed values</u></p> <pre><validValue name="Suspension_by_Market_Operations">1</validValue> <validValue name="Unhalted_by_Market_Operations">2</validValue> <validValue name="Suspension">3</validValue> <validValue name="Automatic_Halting_by_Matching_Engine">6</validValue> <validValue name="Uncrossing_By_Market_Operations">17</validValue> <validValue name="Closing_Due_to_Suspended_Underlying">18</validValue> <validValue name="Closing_Due_to_Halted_Underlying">19</validValue></pre>	No technical impact. Clean-up of Unused values.
	<p><u>In enum name="StatusReason_enum renamed values</u></p> <pre><validValue name="Automatic_Unhalting_by_Matching_Engine">7</validValue> renamed as Automatic_Reopening <validValue name="Suspension_Post_Creation">20</validValue> renamed as New_Listing <validValue name="Suspension_Due_to_Underlying">21</validValue> renamed as Due_to_Underlying <validValue name="Technical_Suspension">23</validValue> Renamed as Technical</pre>	No technical impact. Alignment of values currently used only on Cash markets
	<p><u>In enum StrategyCode_enum value removed</u></p> <pre><validValue name="Inter_Commodity_Spread" sinceVersion="3">U</validValue></pre>	No technical impact. Clean-up of Unused values.
	<p><u>In enum MarketDataPriceType_enum removed value</u></p> <pre><validValue name="New_Last_Price">11</validValue></pre>	No technical impact. Clean-up of Unused values.
	<p><u>In enum MarketDataPriceType_enum added value</u></p> <pre><validValue name="External_Reference_Price">31</validValue></pre>	No technical impact. Alignment of values currently used only on Cash markets
	<p><u>The following enum sections were removed</u></p> <p>QuoteUpdateType_enum MarketModel_enum RepoIndicator_enum MarketDataActionType_enum OrderType_enum PhaseId_enum GuaranteeIndicator_enum EfficientMMTMarketMechanism_enum EfficientMMTTradingMode_enum EfficientMMTNegotiationIndicator_enum EfficientMMTAgencyCrossTradeIndicator_enum EfficientMMTModificationIndicator_enum EfficientMMTBenchmarkIndicator_enum EfficientMMTSpecialDividendIndicator_enum EfficientMMTOffBookAutomatedIndicator_enum</p>	No technical impact. Clean-up of Unused values, and alignment of structures as they are managed on the Cash markets

	<p>EfficientMMTContributiontoPrice_enum EfficientMMTAlgorithmicIndicator_enum EfficientMMTPublicationMode_enum EfficientMMTPostTradeDeferral_enum EfficientMMTDuplicativeIndicator_enum TaxCode_enum TypeOfMarketAdmission_enum</p>	
	<p><u>In enum MarketDataUpdateType_enum removed values</u> <validValue name="New_Bid_SI" deprecated="6">20</validValue> <validValue name="New_Offer_SI" deprecated="6">21</validValue> <validValue name="Updated_Bid_SI" deprecated="6">22</validValue> <validValue name="Updated_Offer_SI" deprecated="6">23</validValue> <validValue name="SI_Trade">47</validValue> <validValue name="Hidden_Quantity_Trade">62</validValue> <validValue name="Execution_Summary_Buy">68</validValue> <validValue name="Execution_Summary_Sell">69</validValue></p>	<p>No technical impact. Clean-up of Unused values</p>
	<p><u>In enum MarketDataUpdateType_enum added values</u> <validValue name="Guaranteed_Cross_Negotiated_deal_NLIQ">79</validValue> <validValue name="Guaranteed_Cross_Negotiated_deal_OILQ">80</validValue> <validValue name="Large_in_Scale_Trade">81</validValue></p>	<p>No technical impact. Alignment of values currently used only on Cash markets</p>
	<p><u>In enum MarketDataUpdateType_enum Removed flag sinceVersion for fields</u> Large_in_Scale_Trade_in_basis_points, Large_in_Scale_Package_Trade_in_basis_points Strategy_Leg_Large_in_Scale_Trade_in_basis_points</p>	<p>No technical impact. Alignment of setup currently on Cash markets</p>
	<p><u>In enum EMM_enum</u> <validValue name="Societe_Generale_Systematic_Internaliser" deprecated="6">50</validValue></p>	<p>No technical impact. Clean-up of Unused values</p>
	<p><u>In enum EMM_enum value modified</u> <validValue name="Not_Applicable">254</validValue> value changed to 99</p>	<p>Update in line w/ specifications & change summary</p>
	<p><u>In enum OrderEntryQualifier_enum removed value</u> <validValue name="Order_Entry_Only">4</validValue></p>	<p>No technical impact. Clean-up of Unused values</p>
	<p><u>In enum TradeType_enum removed values</u> <validValue name="SI_Trade">21</validValue> <validValue name="Hidden_Quantity">35</validValue></p>	<p>No technical impact. Clean-up of Unused values</p>
	<p><u>In enum TradeType_enum removed sinceVersion flag from fields:</u> Large_in_Scale_Trade_in_basis_points, Large_in_Scale_Package_Trade_in_basis_points Strategy_Leg_Large_in_Scale_Trade_in_basis_points</p>	<p>No technical impact. Alignment of setup currently on Cash markets</p>
	<p><u>In enum TradeType_enum added values</u> <validValue name="ETF_MTF_NAV_Trade_price_in_bp">37</validValue> <validValue name="ETF_MTF_NAV_Dark_Trade_price_in_bp">38</validValue> <validValue name="Guaranteed_Cross_Negotiated_deal_NLIQ">39</validValue> <validValue name="Guaranteed_Cross_Negotiated_deal_OILQ">40</validValue></p>	<p>No technical impact. Alignment of values currently used only on Cash markets</p>
	<p><u>In enum OptiqSegment_enum added values</u> <validValue name="Index_Derivatives" sinceVersion="7">11</validValue> <validValue name="Equity_Derivatives" sinceVersion="7">12</validValue> <validValue name="Financial_Derivatives" sinceVersion="7">13</validValue></p>	<p>In line with change for MDG segmentation identified in specifications</p>
	<p><u>In enum OptiqSegment_enum values NOT set as deprecated, but no longer in use</u> <validValue name="Financial_Options">6</validValue> <validValue name="Financial_Futures">7</validValue></p>	<p>No technical impact</p>
	<p><u>In enum ExerciseStyle_enum added values</u> <validValue name="Asian">2</validValue> <validValue name="Bermudan">3</validValue> <validValue name="Other">4</validValue></p>	<p>No technical impact. Alignment of values currently used only on Cash markets</p>
	<p><u>In set TradeQualifier value renamed</u> <choice name="OpeningTrade">1</choice> renamed as FirstTradePrice</p>	<p>No technical impact. Alignment of values currently used only on Cash markets</p>
Removed Messages	<p><sbe:message name="TradeRetransmissionStart" id="1104"> <sbe:message name="TradeRetransmissionEnd" id="1105"> <sbe:message name="ExchangeAnnouncement" id="1010"></p>	<p>In line with change for MDG segmentation identified in specifications</p>

	<p><sbe:message name="OrderUpdate" id="1002"> <sbe:message name="Timetable" id="1006"> <sbe:message name="StandingData" id="1007"> <sbe:message name="APAQuotes" id="1026" sinceVersion="5"> <sbe:message name="APAStandingData" id="1027" sinceVersion="5"> <sbe:message name="APAFullTradeInformation" id="1028" sinceVersion="5"></p>	<p>No technical impact. Currently not in use on the Derivatives market. To be reviewed for re-introduction in future version for Phase 3</p>
Added Messages	<p>Added message <sbe:message name="TechnicalNotification" id="1106"></p>	<p>Type added for management of new message Technical Notification, in line with specifications and change summary.</p>
Full trade Information (1004)	<p><u>In message FullTradeInformation (1004) change of field presence</u> symbolIndex is set to Optional – to cover cases on Cash markets tradeQualifier is no longer optional</p>	<p>No technical impact. Alignment of values and structures as currently used on Cash markets</p>
	<p><u>Deprecated was indicated since version 101, and will be modified to be since version 6</u></p>	<p>To be fixed in updated SBE template (semanticVersion 1.6.1) for February 20th</p>
StrategyStandingData message (1012)	<p>Remove sinceVersion on field contractSymbolIndex & CFI</p>	<p>No technical impact. Alignment of values and structures as currently used on Cash markets</p>
ContractStandingData (1013)	<p>Removed SinceVersion for fields tickValueDecimals, pricingAlgorithm, underlyingSubtype, motherStockISIN, referenceFutureContractSecGrp, instrumentTickSizeLong</p>	<p>No technical impact. Alignment of values and structures as currently used on Cash markets</p>
	<p>SBE template published on the website (on 21st of January) removed “deprecated” flag from the field instrumentTickSize. The SBE template published on the EFS is with the flag added back. This does not impact population of data in the fields, and clients may continue using fields InstrumentTickSizeLong as before until implementation of Phase 3.</p>	<p>To be fixed in updated SBE template (semanticVersion 1.6.1) for February 20th</p>
	<p>instrumentTickSizeLong is now optional</p>	<p>No technical impact. Alignment of values and structures as currently used on Cash markets</p>
OutrightStandingData (1014)	<p>Removed SinceVersion for fields underlyingInstrumentTradingCode & daysToExpiry</p>	<p>No technical impact. Alignment of values and structures as currently used on Cash markets</p>

For the latest version of documentation please visit www.euronext.com/optiq.