



Document title

**OPTIQ<sup>®</sup> MDG STEP 1: CONFORMANCE TEST  
GUIDELINES**

Document type or subject

Conformance testing guidelines

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## PURPOSE

This document provides guidelines on how to test applications against Euronext's Optiq Market Data Gateway (MDG) publisher.

The document outlines all required conformance steps, the organization of tests, the testing timelines.

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## TARGET AUDIENCE

This document targets all customers that want to subscribe to OPTIQ® MDG and should therefore make sure their solution is developed according to our market data publisher standard.

Optiq® MDG conformance testing is mandatory for all member developers developing their in-house solution and for technology providers (ISV's, ASP's and Market Data Vendors). Clients using exclusively a technology provider are not required to pass conformance testing as this will be managed by their technology providers. Clients using a mixed in-house and provider solution for market data, however, need to validate conformance testing on their in-house developed solution.

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## WHAT'S NEW?

The following lists only the most recent modification made to this revision/version. For the Document History table, see the Appendix.

REVISION NO./ VERSION NO.	DATE	AUTHOR	CHANGE DESCRIPTION
1.0	18 Apr 2017	Euronext	Publication of the conformance test guidelines
1.1	17 Jul 2017	Euronext	Publication of the conformance test guidelines

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## ASSOCIATED DOCUMENTS

All the IT documentation of Euronext can be found on a dedicated page of the Euronext website: <https://www.euronext.com/optiq/documentation>

[Further, the conformance section of this web page contains the conformance scripts.](#)

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## **1. EXECUTIVE SUMMARY**

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Customers are required to verify the conformance of their software solutions for all applications that wish to use the Optiq® Market Data in production. As communicated in the [InfoFlash of 31 March 2017](#), the conformance testing period starts in April 2017 and ends on 15 May 2017.

### **1.1 Before taking the test**

### **1.2 Scope of conformance testing**

### **1.3 Process for testing**

### **1.4 Environment for conformance testing**

## 2. SCOPE OF CONFORMANCE TESTS

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### 2.1 Components validated through conformance testing

The MDG conformance test is split to different themes organised as follows:

- Real time (mandatory for both cash and derivatives)
- SBE (mandatory for both cash and derivatives)
- Emergency commands (mandatory for cash only)
- Snapshot (highly recommended for both cash and derivatives)<sup>1</sup>
- High Availability (highly recommended for both cash and derivatives)

These tests can be conducted at different times of the day depending on the theme. Please refer to section 3.4 for the detailed testing timeframe.

For more information on the content of the tests, please refer to the conformance test script document in the Optiq documentation section of our website.

### 2.2 Instruments covered by conformance testing for MDG

#### 2.2.1 Feed handler solutions for the Cash market

- OPTIQ SEGMENT – 1. EQUITIES REAL-TIME AND SNAPSHOT CONFIGURATION
  - MDG Set Of Channels ID 6 – Equities Netherlands
  - MDG Set Of Channels ID 5 – Equities France
  - MDG Set Of Channels ID 7 – Equities Belgium (Including Public Auction Market)
  - MDG Set Of Channels ID 8 – Equities Portugal
  - MDG Set Of Channels ID 9 – Equities UK
  - MDG Set Of Channels ID 11 – Best of Book (RMF)
  - MDG Set Of Channels ID 10 - Societe Generale Systematic Internaliser (SI)
- OPTIQ SEGMENT – 2. FUNDS REAL-TIME AND SNAPSHOT CONFIGURATION
  - MDG Set Of Channels ID 1 – Funds
- OPTIQ SEGMENT – 3. FIXED INCOME REAL-TIME AND SNAPSHOT CONFIGURATION

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<sup>1</sup> With regard to the features [features: Snapshot, full trade information 1004, statistics 1009, exchange announcement 1010, disaster recovery site, derivatives standing data file 9013, full trade information file 9030, time table file 9001, cash standing data file 9007 ] Euronext recommends the Customer to submit the Features to conformance testing. However, as the Features are optional, testing the Features is not mandatory for the Customer. In the event the Customer does not test the Features, Euronext accepts no liability / responsibility for any and all claims, suits, proceedings, expenses, losses, liability and/ or damages arising from or related to the Features. The Customer ensures that it understood and accepts Euronext's explicit recommendation to submit the Features to conformity tests, as well as Euronext's disclaimer for the event the Customer chooses not to test the Features. Nothing in this paragraph limits Euronext's liability to the Client for (a) death or personal injury caused by the negligence of Euronext; (b) fraud; (c) willful misconduct or gross negligence;

## MDG Set Of Channels ID 2 – Fixed Income

- OPTIQ SEGMENT – 4. WARRANTS & CERTIFICATES REAL-TIME AND SNAPSHOT CONFIGURATION  
MDG Set Of Channels ID 4 – Warrants & Certificates
- OPTIQ SEGMENT – 5. BOURSE DE LUXEMBOURG REAL-TIME AND SNAPSHOT CONFIGURATION  
MDG Set Of Channels ID 3 – Bourse de Luxembourg
- OPTIQ SEGMENT – 9. INDICES REAL-TIME AND SNAPSHOT CONFIGURATION  
MDG Set Of Channels ID 13 – Euronext Indices  
MDG Set Of Channels ID 14 – Euronext iNAV's  
MDG Set Of Channels ID 15 – Third Party Indices
- OPTIQ SEGMENT – 10. TRADE REPORTING AND PUBLICATION REAL-TIME AND SNAPSHOT CONFIGURATION  
MDG Set Of Channels ID 12 – Trade Reporting and Publication

### 2.2.2 Feed handler solutions for the derivatives market

- OPTIQ SEGMENT – 6. FINANCIAL OPTIONS REAL-TIME AND SNAPSHOT CONFIGURATION  
MDG Set Of Channels ID 21 – Equity Options Netherlands  
MDG Set Of Channels ID 20 – Equity Options France  
MDG Set Of Channels ID 22 – Equity Options Other (Belgium and Portugal)  
MDG Set Of Channels ID 24 – Index Options Netherlands  
MDG Set Of Channels ID 23 – Index Options France  
MDG Set Of Channels ID 25 – Index Options Other (Belgium and Portugal)  
MDG Set Of Channels ID 18 – Currency Options  
MDG Set Of Channels ID 19 – AtomX (for Flex Contracts)
- OPTIQ SEGMENT – 7. FINANCIAL FUTURES REAL-TIME AND SNAPSHOT CONFIGURATION  
MDG Set Of Channels ID 27 – Equity & Index Futures Netherlands  
MDG Set Of Channels ID 26 – Equity & Index Futures France  
MDG Set Of Channels ID 28 – Equity & Index Futures Other (Belgium and Portugal)  
MDG Set Of Channels ID 17 – Currency Futures
- OPTIQ SEGMENT – 8. COMMODITY DERIVATIVES REAL-TIME AND SNAPSHOT CONFIGURATION  
MDG Set Of Channels ID 16 – Commodity Derivatives

## 3. PROCESS FOR CONFORMANCE TESTING

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### 3.1 Before taking the test

### 3.2 Using automated scripts throughout the day

### 3.3 During the test

The beginning of the conformance test is triggered by the instruments opening at the beginning of the automated script. The end of the conformance test is triggered by the instruments closing at the end of the automated script.

There are dedicated groups of instruments for the MDG conformance test. Order entry is forbidden for clients on these instruments to not interfere with the tests results.

During the conformance script running, clients are asked to listen to Market data and record the data.

### 3.4 Timeframe for tests

### 3.5 Focus on snapshot script:

### 3.6 After the test

Once customers have completed their conformance test, they are required to [complete web forms](#) showing their test results in order to confirm whether the results are correct. Link

If the form is filled in correctly, Euronext will send the customer a conformance certificate<sup>2</sup> and authorize the customer access to the production environment. The certificate will be delivered to customers once they successfully conformed on mandatory features.

If the form is filled in incorrectly, Euronext will inform the customer where the test failed and invite the customer to run the conformance test for that section.

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<sup>2</sup> This Optiq MDG conformance certificate is based on information Euronext has received from the client, for which the client is and remains fully responsible. Euronext accepts no liability / responsibility for any and all claims, suits, proceedings, expenses, losses, liability and/ or damages arising from or related to errors and/ or omissions in the information received from the client.

### 3.7 Webforms

Four conformance test forms are available. These forms allow customers to provide their conformance test results:

**Real time & SBE Cash:**

<https://connect2.euronext.com/form/optiq-conformance-rlt-sbe-cash>

**Real time & SBE Derivatives:**

<https://connect2.euronext.com/form/conformance-optiq-rlt-sbe-der>

**Snapshot & Emergency Commands Cash:**

<https://connect2.euronext.com/form/conformance-optiq-snapshot-ec-cash>

**Snapshot Derivatives:**

<https://connect2.euronext.com/form/conformance-optiq-snapshot-ec-der>

**MDG Cash HA:**

<https://connect2.euronext.com/form/ha-conformance-mdg>

**UTP Cash HA:**

<https://connect2.euronext.com/form/ha-conformance-utp>



## 4. APPENDIX

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### Cash Instruments for conformance

Market	ISIN	Trading group	Trading Type
Equities France	FR4000000095	QA	continuous
Equities France	FR4000000103	QA	continuous
Equities Netherlands	FR4000000111	J7	continuous
Equities Netherlands	FR4000000129	J7	continuous
Equities Belgium	BE0003833507	QE	Fixing
Equities Belgium	BE0003814317	QE	Fixing
Equities UK	FR1000003657	FA	Continuous
Equities Portugal	FR4000000137	P2	Fixing
Equities Portugal	FR4000000145	P2	Fixing
RMF	FR4000000012	QF	Continuous
RMF	NSCGB0LVC002	QL	Continuous
SI	FR4000000020	QB	continuous
SI	FR4000000038	QB	continuous
ETF	FR4000000046	QC	continuous
ETF	FR4000000053	QC	continuous
ETF	FR4000000061	QD	continuous
ETF	FR4000000087	G2	continuous
ETF	IE00B5BMR087	KI	continuous
Fixed Income	BE0002190560	ER	Fixing
Fixed Income	CA629435AC25	LG	Continuous
Fixed Income	BE0002267368	EY	continuous

Market	ISIN	Trading group	Trading Type
Fixed Income	PTCON1OE0008	R1	continuous
W & C	BE0974305378	D3	Fixing
W & C	DE000BC2KY13	N1	continuous
W & C	DE000CN90T68	D0	continuous
W & C	DE000CZ4VMK8	U9	continuous
W&C PAR	DE000HV0JF00	H0	continuous
BDL	FR0010301713	YH	Fixing

**Derivatives Contracts for conformance**

Derivative Instrument	p-EUA code	Instruments
MDG-CT Index Options	KO9IO	KO9IO191205000C KO9IO201205000C
MDG-CT Index Futures	KF9IF	KF9IF171200000F KF9IF180300000F
MDG-CT Equity Options	AO9EO	AO9EO191207500C AO9EO201207500C
MDG-CT Single Stock Futures	AF9SF	AF9SF171200000F AF9SF170900000F AF9SF180300000F
MDG-CT Commodity Futures	YF9CF	YF9CF191200000F YF9CF190900000F
MDG-CT Commodity Options	YO9CO	YO9CO190918000P YO9CO191218000P
MDG-CT Currency Futures	ZF9CF	ZF9CF171200000F ZF9CF180300000F
MDG-CT Currency Options	ZO9OC	ZO9OC170911000C ZO9OC171211000C

**Cash instruments for High Availability(failover) conformance:**

Instrument ISIN	Symbol Index	Test Purpose
FR1000009092	1199455	MDG HA
FR1000009134	1201707	UTP HA