

Document title

EURONEXT OPTIQ PHASE 3: ORDER ENTRY GATEWAY (OEG) AND MATCHING ENGINE (ME) DRESS REHEARSAL GUIDELINES FOR ALL DERIVATIVES MARKET SEGMENTS ON 9 NOVEMBER 2019

Document type or subject

EURONEXT OPTIQ PHASE 3: ORDER ENTRY GATEWAY (OEG) AND MATCHING ENGINE (ME) DRESS REHEARSAL GUIDELINES

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Euronext Optiq® Phase 3: Order Entry Gateway (OEG) and Matching Engine (ME) Dress Rehearsal Guidelines for All Derivatives Market Segments on 9 November 2019

EXECUTIVE SUMMARY

Customers are invited to test the Euronext Optiq® Phase 3: Order Entry Gateway (OEG) and Matching Engine (ME) on All Derivative Market Segments during the Dress Rehearsal organised in the Production environment on Saturday 9 November 2019 between 11:00 and 16:00 Central European Time (CET).

This Dress Rehearsal will allow customers to test the target Production implementation of Order Entry Gateway (OEG) Derivative in advance. Customers will not be authorised to take part in the Dress Rehearsal week-end unless they have (i) validated their conformance test, (ii) confirmed Telnet connectivity to Production and (iii) ordered their Order Entry (OE) Sessions for Production.

Markets will close on the evening of Friday 8 November 2019 and open on Monday 11 November 2019 as usual, without taking the activity of Saturday 9 November 2019 into account. Customers are responsible for purging all market data and order entry data sent and received during any Saturday test.

Euronext Optiq® Phase 3: Order Entry Gateway (OEG) and Matching Engine (ME) Dress Rehearsal Guidelines for All Derivatives Market Segments on 9 November 2019

PREFACE

PURPOSE

The purpose of this document is to provide customers with a detailed description of the Euronext Optiq® Dress Rehearsal on Saturday 9 November 2019.

ASSOCIATED DOCUMENTS

This document should be read in conjunction with the following documents.

TITLE	DESCRIPTION
Euronext Optiq Phase 3: Order Entry Gateway (OEG) and Matching Engine (ME) Migration Guidelines	Guidelines for migration from UTP to Optiq
Optiq Euronext File Services User Guide	EFS user guide
Euronext Cash Markets - Optiq OEG Connectivity Configuration specifications	Description of the Production OEG connectivity configuration
Market Data Gateway Production Environment	Description of the Production MDG configuration
Euronext Cash and Derivatives Markets – Optiq File Specification	Description of the files for Cash and Derivatives
Euronext Cash and Derivatives Markets – Optiq MDG Client Specifications	To be used by all segments for phase 3
Euronext Cash Markets - Optiq OEG Client Specifications - SBE Interface	Optiq binary protocol specifications for phase 3
Euronext Cash Markets - Optiq OEG Client Specifications - FIX 5.0 Interface	Optiq FIX 5.0 protocol specifications for phase 3
Euronext Cash Markets - Optiq Kinematics Specifications	
Euronext Cash Markets - Optiq & TCS Error List	
How the Market Works	

DOCUMENT HISTORY

The following table provides a description of all changes to this document.

VERSION NO.	DATE	CHANGE DESCRIPTION
1.0	November 2019	Document for 9 November 2019 Dress Rehearsal

SUPPORT

Please find below the Optiq Support Desk contact details, which has been established to ensure customer readiness by:

- sending information to customers related to Optiq
- answering customers' questions related to Optiq
- assisting customers in their testing and validation on the EUA environment
- providing follow-up on customer conformance testing
- assessing customers' state of readiness with regards to technical changes

Euronext Market Services Equities and Derivatives: Tel: +33 1 85 14 85 85 Email: optiq@euronext.com

Euronext Optiq® Phase 3: Order Entry Gateway (OEG) and Matching Engine (ME) Dress Rehearsal Guidelines for All Derivatives Market Segments on 9 November 2019

Further Information

- For additional product information please visit: www.euronext.com/optiq
- For Optiq documentation please visit: Optiq documentation page

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1. SCOPE OF THE TEST

1.1 TEST OVERVIEW

Customers are expected to conduct the following tests:

- Secure network resources on the day of the Dress Rehearsal to validate firewall / security path
- Connect to the Production environment
- Inject orders
- Purge the book at the end of the day and restore the order book to Friday night

Validate their participation at the end of the day through the following web form.

1.2 ACCESS TO SERVICES & APPLICATIONS

Euronext services and applications will be set up as follows for the rehearsal:

Optiq Order Entry and MDG Phase 3 for All Derivative Market Segments, including Drop Copy

1.3 DETAILS

Below please find details relevant to the Optiq Derivative Order Entry (OEG) and Matching Engine (ME) Dress Rehearsal tests for Derivative Segments on Saturday 9 November 2019.

Between 11:00 and 16:00 CET, customers are required to:

вe	tween 11:00 and 16:00 CET, customers are required to:
•	 Connect to the Production environment: Test and validate the new Optiq Order Entry logical connectivity on Derivative market segments. Log on through their OEG connections for Derivatives: OEG connectivity for: EquitiyDerivatives, FinancialDerivatives, IndexDerivatives, Commodities segments Retrieve required files from Euronext Files Services (EFS). Perform Market Data checks on MDG Phase 3 (all Derivative segments). Check the market data broadcast via multicast by connecting their application/feed handler to Real time and Snapshot.
•	Inject orders ☐ For example: Any Derivative segment order through OEG. ☐ Customers can verify the publication of market data through the expected MDG channels.
•	Purge the book at the end of the day and restore the order book to Friday night This applies to orders sent through OEG for any Derivative segment and any internal data stored on the client side.
•	Validate their participation at the end of the day via the web form:

☐ The <u>Dress Rehearsal Participation Form</u>

Between 16:00 and 18.00 CET, Euronext may conduct further internal tests. Customers are invited to ignore any data received after the Dress Rehearsal tests.

1.4 OUT OF SCOPE

The following services / markets are out of scope for this rehearsal:

- Tests with LCH
- Functional High Availability
- Cash markets
- Saturn

2. CUSTOMER SUPPORT

Customer support is provided as follows:

- On Saturday 9 November, support will be provided by Euronext Market Services (EMS) and the Optiq Support Desk from 11:00 to 16:00 CET;
- Customers who experience issues that are not associated to the tests of the Dress Rehearsal are invited to contact the Optiq Support Desk during the week following the dress rehearsal tests.

In case of questions related to the tests, customers may contact the **Optiq Support Desk** ahead of the tests and during the Dress Rehearsal by email at optiq@euronext.com or **EMS** by phone at +33 1 8514 8585.

 Real-time events will be posted on the Market Status website during the Dress Rehearsal validation at: www.euronext.com/market-status

3. MAIN PRINCIPLES OF THE TEST

Customers will be notified to connect to the platform via the Market Status webpage.

Upon confirmation of start of tests customers should be able to connect to the Euronext OEGs and MDGs for the market segments below:

- Equity Derivatives
- Index Derivatives
- Financial Derivatives
- Commodities

The sequence for market opening is the following:

- Euronext will switch to the Call trading phase
- As soon as Euronext considers that Derivative markets are ready to be fully operational, a continuous trading session will be set up on Optiq. Customers are invited to make sure that their internal systems and access means are correctly synchronised with Euronext Optiq.

Euronext would like to make this test as realistic as possible in order to draw the most relevant and useful conclusions, and therefore encourages customers to participate actively by sending orders.

3.1 TRADING DATES DETAILS

The trading date used for the purposes of the test will be Saturday 9 November 2019.

- For all Derivative segments: No orders will be present in the book

Euronext invites customers to enter orders as they would do in the Production environment.

MDG Standing data files for Derivative markets will be made available on Saturday 9 November 2019 with the business date of Monday 11 November 2019. Please make sure you do not have any security in place that would prevent to process them.

During the rehearsal on 9 November 2019 HA tests would not be performed.

3.2 PRE-REQUISITES FOR TAKING PART IN THE DRESS REHEARSAL

It is mandatory for any customer expected to take part in the Dress Rehearsal week-end

- 1) To have validated their conformance test,
- 2) To have confirmed Telnet connectivity to Production and
- 3) To have ordered their OE Sessions for Production.

Customers must have a Euronext File Services (EFS) account to access the Pre-Production Optiq Euronext File Services. Customers can request their account by contacting Customer Access Services (CAS):

Phone: +33 1 85 148 589Email: cas@euronext.com

4. DRESS REHEARSAL TEST SCHEDULE

Note: All timings are approximate and are stated in CET

Timeline	Action	Cash	Derivatives
11:00	 Beginning of the test Participants are invited to check the status and timeline on the Market Status web page Market Data: Optiq MDG Derivatives Technical "Start Of Day" messages should be broadcasted over Derivatives MDG Production multicast channels Referential Files are made available on EFS: Optiq Step 3 Derivatives Standing Data Files will be provided on the Euronext File Server for EquityDerivatives, IndexDerivatives, FinancialDerivatives and Commodities segments. These files have the date of Monday. 	No	✓
11:15	Euronext Optiq MDG Derivatives real-time Standing Data messages will be provided over MDG Production multicast channels Euronext Optiq MDG Derivatives real-time MarketUpdate, MarketStatusChange, TechnicalNotification, Price Update, OrderUpdate messages will be provided over MDG Production multicast channels	No	√
11:45	Markets in Call phase for the available Derivatives segments	No	✓
12:00	Opening and Continuous Trading Session for the available Derivatives segments		
14:45	HA test on EquityDerivatives segment broadcast of TechnicalNotification, MarketUpdate, PriceUpdate (For Future tests. Will not occur on 9 November 2019)		
15:00	HA test on IndexIDerivatives segment broadcast of TechnicalNotification, MarketUpdate, PriceUpdate messages (For Future tests. Will not occur on 9 November 2019)		
16:00	Markets in Closed for the available Derivatives segments	No	✓
	End of customer testsCustomers can disconnect from Euronext central systems	No	✓
	A Market Status message is sent confirming the end of the Dress Rehearsal	No	√
16:00 18:00	Euronext may conduct internal tests.	No	√
18:00	Referential Files on EFS will be replaced with content for Monday, for all Derivatives segments.	No	√

4.1 IMPORTANT REMINDERS

During the test, Euronext will <u>not</u> be able to broadcast the real-time Derivatives Standing data messages over Optiq Market Data twice. Customers who have missed the broadcast of the referential data are requested to use the Optiq Derivatives Standing Data files made available on the EFS.

Euronext will not consider any requests or potential customer issues encountered on the day of the Production migration if the customer has not taken part in the prior rehearsal tests or completed EUA validation.

4.2 ROLL-BACK FOR CUSTOMERS' INTERNAL SYSTEMS

Order Books

Upon completion of the Dress Rehearsal, customers must restore/rollback the order book data in their internal Production systems to the state of Friday 8 November 2019 evening after the end of the trading session. It is very important that customers do NOT synchronise their order book with the data from the <u>tests</u> performed on Saturday 9 November 2019.

The Saturday 9 November 2019 session will not be taken into account in the Live/Production environment which will start on Monday 11 November 2019 as usual. Customers are requested to ensure their readiness for the next trading day's activities following any Saturday test.

Customers are responsible for purging all market data and order entry data sent and received during any Saturday test.

Standing Data:

Optiq Step 3 Derivatives Standing Data Files will be provided on the Euronext File Server (EFS) for Equity Derivatives, Index Derivatives, Financial Derivatives and Commodities segments.

These files provided for the rehearsal will have the date of Monday, and will override the files that were generated EOD Friday. After 18:00 on Saturday, standing data files will be rolled-back to the content to use for trading on Monday.

Customers are responsible for making sure that they incorporate the correct standing data for trading on Monday.

4.3 CONTACTS

On Saturday 9 November 2019, Euronext Market Services (EMS) will be available for the Pre-Production support of Optiq Phase 3. EMS should be the point of contact for any questions about the rehearsal (e.g. tests, timelines), associated MDG and EFS changes:

- Euronext Market Services Equities
- optiq@euronext.com
- Tel: +33 1 85 14 85 85