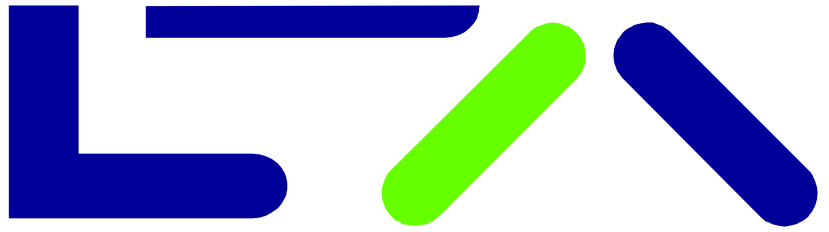


X-pand into the Future



eurex circular 075/07

Date: Frankfurt, April 18, 2007
Recipients: All Trading Members of Eurex Deutschland and Eurex Zürich and Vendors
Authorized by: Jürg Spillmann

U High priority

Eurex Release 10.0: Introduction of new Functionality and two new optional Interfaces

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Content may be most important for:

Ü All departments

Attachment:

Eurex 10.0 Information Calendar 2007

Summary:

Eurex is planning to introduce Eurex Release 10.0 and two new optional interfaces.

- **Eurex Release 10.0:**
The release is planned to be introduced on **November 26, 2007**. Release simulation is scheduled for the period from September 17, 2007 until November 16, 2007. As a result of format changes regarding Order ID and Trade ID, the Eurex Release 10.0 is **NOT** backwards compatible and – as a consequence – it is mandatory that all members adapt their In-house systems to coincide with the introduction of Eurex Release 10.0. To ensure smooth introduction Eurex recommends that members evaluate the impact on their systems as soon as possible in order to take the appropriate actions.
- **New interface for the dissemination of public market data:**
The new interface introduces a high-performance, functionally enhanced market information broadcast mechanism. The interface is based entirely on the multicast concept. Simulation and introduction of the interface are planned together with Eurex Release 10.0.
- **New interface for fast access to the trading system:**
The new interface will be a socket-based interface focusing on the functionality of order and quote entry and management. Member simulation and introduction in production is scheduled to take place in the first half of 2008.

Detailed information on the changes planned for Eurex Release 10.0 and for the new public market data interface will be provided in the Preliminary Functional and Technical Release Notes. The planned publication date for the release notes as well as for further documentation associated with the new release and the new public market data interface can be found in the attachment.



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Eurex Release 10.0: Introduction of new functionality and two new optional Interfaces

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A. Eurex Release 10.0

1. Overview of major changes in system functionality

a. Enhancements of Flexible Options and introduction of Flexible Futures

The concept of flexible contracts will be extended to Flexible Futures enabling users to define an expiration date. The expiration date can be any business day starting from the next business day until the longest currently active standard expiration date of the respective futures product. Additionally, the settlement type is selectable where applicable. All Flexible Options enhancements will also be available for Flexible Futures trades.

The Flexible Options trading and clearing facility will be enhanced by enabling trade separations. In this context it is required to introduce a new suffix ID for Flexible Options transactions resulting to a change of the VALUES interface. Furthermore, the settlement type will be flexible for products where applicable, meaning that members are able to choose where the positions are cash-settled or are physically delivered. Restrictions for exercise prices will also be removed.

b. Non-persistent orders and quotes

Currently (Eurex Release 9.0), all orders and quotes are persistent, i.e. they are safeguarded against data loss by a special recovery mechanism. Together with the new release, a new order type, non-persistent orders, will be introduced and quotes will be non-persistent in general. Non-persistent orders are expected to result in reduced order processing time on the Eurex host and, therefore, contribute to lower system latency. However, in the event of a system outage, quotes and non-persistent orders will be lost and members will have to re-enter them again. Members can choose whether they send their orders as

persistent or as non-persistent orders. Members have to adapt their trading systems to process messages indicating that non-persistent orders and quotes have been withdrawn in such an event.

c. Pre-trade Risk Protection

To reflect trends towards fully automatic machine-trading and to ensure the integrity of orderly markets, Eurex will introduce pre-trade risk measures which will enable Clearing Members to define risk limits for their Non-Clearing Members.

- Clearing Members will be able to define the maximum order quantity per product for their Non-Clearing Members in order to control the risk of single orders/quotes.
- High-frequency trading activity and “mad machine” risks can be controlled by setting an individual order limit per time interval for the Non-Clearing Member.
- Clearing Members can control the size and risk quality of the Non-Clearing Members' order book and as a result the credit risk by limiting the quantity of open orders in the order book.

In addition, any member can define pre-trading risk protection limits for their trader subgroups.

d. Stop Button Facility

To also reflect trends towards machine-trading and ensure the integrity of orderly markets, Eurex will introduce a stop-button facility to allow Clearing Members to trigger a “Stop” action for their Non-Clearing Members and enable the possibility of a fast and efficient reaction to emergency situations. The stop action will include deletion of open orders and quotes, prevention of any further entries for order or quote and OTC transactions as well as trade and position adjustments.

e. Product Grouping

The new data entity “Product Group”, representing configurable sets of products, will be introduced to the Eurex[®] system. Product Groups will be administrated by the exchange and will facilitate execution of common tasks such as Product Assignment for all products assigned to the corresponding product group. In the case of “Product Group Assignment”, the new data entity will enable Clearing Members to maintain Maximum Order Quantities for themselves as well as for their Non-Clearing Members. For all members, the new data entity can be used by the member security coordinator to assign product groups to a trader. The assignment of individual products to traders will continue to be supported.

f. Contract Halt

Eurex will be able to de-activate Futures series with immediate effect and to activate inactive series for trading on the next trading day. Members will not be able to access inactive Futures contracts for trading. Transition from an active to an inactive series will be communicated to the market via **Market Supervision Messages**.

The activation date of individual system functionality is not necessarily identical to the introduction date of Eurex Release 10.0. The individual activation dates will be announced separately by Eurex via circular at a later point in time.

2. Overview of Major Technical and Infrastructure Changes

a. New Formats for Order ID and Trade ID

At present, Order ID and Trade ID within the Eurex[®] system are represented in numeric format. The 9-digit Order ID and 6-digit Trade ID currently support up to a maximum of 1 billion orders and 1 million trades, which will not be sufficient for the expected future growth in trading volume.

Together with Eurex Release 10.0, the Eurex[®] system will be changed to provide the 9-digit Order ID and the 6-digit Trade ID in an alpha-numeric format¹. As an example, the table below illustrates the new format. Order IDs larger than 000GJDGXR in the new format cannot be represented with 9 digits in the old format; these numbers are indicated in italic font in the table below.

Current numeric Order ID	New alpha-numeric Order ID - 9 digits	Old numeric Order ID	New alpha-numeric Order ID - 9 digits
000000001	000000001	000001296	000000100
000000002	000000002	000001297	000000101
.....
000000009	000000009	000046655	000000ZZZ
000000010	00000000A	000046656	000001000
000000011	00000000B	.....	.....
.....	.....	999999999	000GJDGXR
000000035	00000000Z	<i>1,000,000,000</i>	000GJDGXS
000000036	000000010	.....	.....
000000037	000000011	<i>2,176,782,335</i>	000ZZZZZZ
.....	.....	<i>2,176,782,336</i>	001000000
000000046	00000001A	.....	.....
000000047	00000001B	<i>26,115,417,463,679</i>	999999ZZZ
.....	.....	<i>26,115,417,463,680</i>	99999A000
000000359	00000009Z	.....	.....
000000360	0000000A0	<i>28,211,099,074,559</i>	9ZZZZZZZZ
000000361	0000000A1	<i>28,211,099,074,560</i>	A00000000
.....
000000395	0000000AZ	<i>31,032,208,982,015</i>	AZZZZZZZZ
000000396	0000000B0	<i>31,032,208,982,016</i>	B00000000
000000397	0000000B1	.....	.....
.....	.....	<i>101,559,956,668,414</i>	ZZZZZZZZY
000001295	0000000ZZ	<i>101,559,956,668,415</i>	ZZZZZZZZZ

Please note that the format change for the Order ID and Trade ID will be effective with the introduction of Eurex Release 10.0. For this reason, it is not possible to support the concept of backwards compatibility for Eurex Release 10.0.

¹ Mathematically speaking, a number in the new format is represented by a number system of basis 36.

To ensure continuous trading and clearing activities after Eurex Release 10.0 has been introduced, it is mandatory that all members adapt their In-house systems to coincide with the introduction of Eurex Release 10.0.

b. Theoretical Price File – Reduction of Size

The size of the theoretical price files is constantly growing due to the permanent increase in the number of products and series in the Eurex[®] system. Together with the introduction of Eurex Release 10.0, a new theoretical price file for derivatives with an optimized file structure will be introduced which will lead to a significantly smaller file size. The decrease in file size will enable members and vendors to process the files faster. In addition it will also enable faster file distribution. The theoretical price file, currently available for derivatives, will be retained for the transition time of one release.

c. General Performance Improvements

Several measures will be introduced with Eurex Release 10.0 to further enhance the performance capabilities of the Eurex[®] system. These measures include enhancing the futures and options matcher, end-of-day batch processing and intra-day margining processing.

B. New Interface for Dissemination of Public Market Data

The new interface will provide an entirely new path for the broadcast of public market information. The architecture of the new interface is modular, extensible and scaleable.

The new interface will be provided in parallel to the existing New Socket Data Feed which was initially introduced with Eurex Release 9.0. As a result members will have the opportunity to migrate to the new interface over a period of time. As it is planned to disseminate un-netted public market information in the future via the new interface only, Eurex will discontinue support of the current New Socket Data Feed. The exact termination date will be announced in a later circular.

Key features of the new interface are:

- Order book depth for options products
Currently only the best bid and best ask prices are available for options. The new interface is able to distribute order book depth for options products.
- Enhanced order book depth for futures products
Currently no more than ten price levels are maintained for selected futures products. The new interface will be able to provide the extended order book depth for all futures products.
- Granular subscription model
A sophisticated subscription model will be provided allowing members to subscribe to an individually configured breadth (i.e. products) and depth of data according to their business needs.
- Low latency
Optimization of the complete market data distribution will minimize latency between an event occurring and the related market information broadcast being seen by members. In addition, the multicast message transport will also contribute to a low latency.
- Follow industry standard
A high-performance protocol will be used supporting mapping onto the FIX 5.0 / FAST protocol. This protocol can be used effectively by members or vendors in developing own applications.

The new interface to disseminate public market data is scheduled to be introduced together with Eurex Release 10.0.

C. New Interface for Fast Access to the Trading System

Together with the new interface for the broadcast of public market information, a new socket-based interface for fast access to the trading system will be provided. This “low foot print” solution should ensure that members can use the new interface independent of their operating system, compiler version and programming language.

Key features of the new interface are:

- **Simplicity**
The scope of services supported by the new interface focuses on order and quote management. The way in which data is encoded and decoded (i.e. syntax and semantics of the interface) will be kept as simple as possible.
- **Low latency**
Usage of the new interface will lead to significantly reduced latency for order and quote entry.
- **Full control on failover**
The new interface will not support transparent failover but the client application can be aligned to a failover mechanism in accordance with member-specific requirements. Heartbeat monitoring will support detection of malfunctions in the communication system.
- **Follow industry standard**
In order to lower entry hurdles for members the new interface will be based on the concepts of the FIX standard as far as possible.

The new interface for fast access to the trading system is scheduled to be introduced in the first half of 2008. It is also planned to offer a member simulation phase prior to the launch of the new interface. Information related to the new interface will be communicated to members with sufficient lead time at a later stage.

Frankfurt, April 18, 2007

Eurex 10.0 Information Schedule	I / 2007			II / 2007			III / 2007			IV / 2007		
	01/2007	02/2007	03/2007	04/2007	05/2007	06/2007	07/2007	08/2007	01/1900	10/2007	11/2007	12/2007
Release Announcement & Information Schedule				☐ 17.04.								
Technical & Functional Release Notes - Preliminary Version						☐ 01.06.						
VALUES API Modification Notes						☐ 01.06.						
Member FE Dev. Guide - Planning Version						☐ 01.06.						
Interface Specification Document "Dissemination of Public Market Data" - Programming Version						☐ 01.06.						
Technical & Functional Release Notes - Final Version								☐ 03.08.				
Member FE Dev. Guide - Programming Version								☐ 24.08.				
Front-End Sizing Guidelines								☐ 24.08.				
Member Manuals - Simulation Version								☐ 24.08.				
Member Simulation Guide								☐ 31.08.				
Eurex 10.0 Front-End Installation Guides								☐ 31.08.				
Common FE Technical Overview including new Interface "Dissemination of Public Market Data"								☐ 31.08.				
Common FE Network Setup including new Interface "Dissemination of Public Market Data"								☐ 31.08.				
Eurex 10.0 Simulation Kit & Notes								☐ 07.09.				
Member FE Development Guide - Final Version										☐ 12.10.		
Interface Specification Document "Dissemination of Public Market Data" - Final Version										☐ 12.10.		
Member Manuals - Production Version										☐ 26.10.		
Eurex 10.0 Production Kit & Notes											☐ 16.11.	