Xetra Circular 177/06

DEUTSCHE BÖRSE

To all Xetra® Members and Vendors

Recipients: Traders, Technical Contacts, Project Coordinators, System Administrators – all platforms, General

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Xetra Release 8.0
Release Description, Communication Calendar,
VALUES API Modification Announcement

Dear Sir or Madam,

We are sending you enclosed the first documents regarding the introduction of Xetra Release 8.0 scheduled for April 23, 2007. These documents contain important detailed information that will support you in preparing for the forthcoming Release. Release simulation is planned between February 12, 2007 and April 13, 2007.

The Release Description provides a comprehensive overview of functional and technical changes that will be introduced with Xetra Release 8.0.

The Communication Calendar gives a summary of all documents we are planning to provide including their publication dates.

The document "VALUES API Modification Announcement" contains a summary of changes to the Application Requests. Like all technical documents we are planning to provide for Xetra Release 8.0, it is only available on the Deutsche Börse website for downloading.

The abovementioned documents have been published in the Xetra/Floor Members Only Section on the Deutsche Börse website www.deutsche-boerse.com. To download your personal copies please visit:

Trading & Clearing > Members Only > Xetra/Floor > Xetra Documentation > Xetra 8.0 > Functional Manuals resp. VALUES API

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Yours faithfully,



Axel Birk
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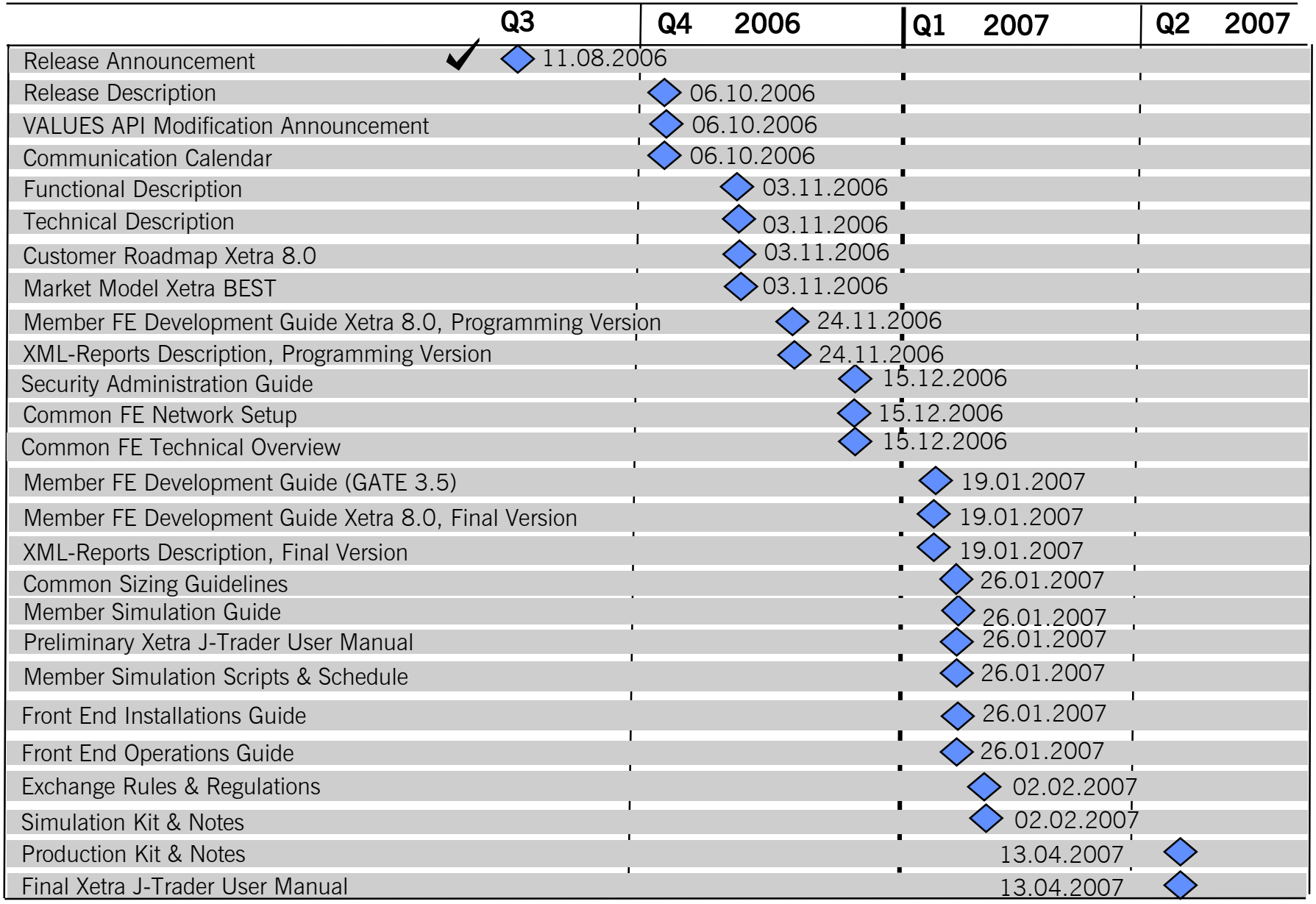


Holger Patt
Trading, Group Service
Implementation & Testing

Enclosure

Introduction of Xetra® Release 8.0
Communication Calendar





Xetra® Release 8.0

Release Description

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1 Introduction

This document describes improvements and developments, which will be implemented with Xetra Release 8.0. The release description is written for Xetra project co-ordinators, system administrators and trading department personnel. It provides an outline of the new functionality and the technical changes. The production start for this release is planned for April 23, 2007.

Apart from a set of measures mainly aiming at a reduction of order roundtrip times as well as an optimized usage of network capacity, Xetra Release 8.0 contains new functions to improve the system's usability in quote driven markets.

Xetra Release 8.0 is a mandatory release. It is not backwards compatible. This means that members need to install VALUES API Release 8.0 and the latest version of the Xetra J-Trader.

2 Performance Measures

With Xetra Release 8.0 an accelerated order book matching is introduced. A memory order book server reduces the access to the system's transaction handling services.

This results in an increased throughput of order book maintenance requests like order or quote entry, modification or cancellation. In addition, the response time for these operations (the order round trip time) is reduced.

Xetra Release 8.0 renews the broadcast mechanisms to reduce the latency of the market data distribution.

Public market data sent to Xetra members is compressed by transmitting only the order book updates instead of the full order book snapshot ("delta protocol"). This is shielded by the VALUES API, which presents the order book in the same way as before introduction of Xetra Release 8.0. This will reduce the load on the network line to the Xetra member (and therefore decrease the latency or increase the available capacity of the line for market data transmission).

Furthermore, the public market data stream will be split into several substreams, e.g.

- DAX
- STOXX, USS
- Fonds, TecDax, MDax
- Eurex Bonds
- EEX
- Common default

On the Xetra member network lines the Xetra system will distribute the transmission of market data onto the selected lines – thereby decreasing the latency of market data delivery to the Xetra member. Furthermore, the member can disable substreams; this reduces further the load or increases the capacity of the network line(s).

With Xetra Release 8.0, inside market inquiry by a member will be served from a cache that contains the same market data that is distributed via the market data broadcast. In addition, an improved compression of inside market inquiries will be introduced which enlarges the number of instruments per request and therefore improves application start-up times.

3 Improved Pre-Trade and Post-Trade Transparency

As an alternative to the existing order book information in netted form, Xetra 8.0 will introduce a new broadcast stream providing un-netted order book information.
In addition to the trade price publication within the inside market streams, a further new broadcast stream ("All Trade Prices") is introduced which provides the complete set of trade prices. Other than the inside market streams, this broadcast is not split into substreams but contains information on all instruments.
In order to keep changes for VALUES applications simple each MISS group can per sub-stream either subscribe to the netted or the un-netted inside market but not to both. E.g. it will be possible to subscribe for un-netted DAX inside market and for netted ETF stream (if both are set up in different sub-streams) but it will not be possible to subscribe to e.g. DAX inside market both un-netted and netted in one MISS-group.
Members who wish to receive price data for one market segment both un-netted and netted can achieve this by use of different MISS groups.
Subscription to the new un-netted broadcast streams requires the appropriate setting of new RALs as well as sufficient bandwidth of the network line.

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4 Heartbeat

Xetra Release 8.0 will support a heartbeat functionality to survey the connection status of a market maker. Applications using the heartbeat monitoring must send heartbeat messages in a dedicated frequency. In case of a connection failure or any other situation causing a heartbeat interrupt, quotes will be deleted on the Xetra backend.

Heartbeat monitoring will be started for a member, subgroup, account type triple after the successful submission of at least one start heartbeat request and a subsequent enter heartbeat request for the member, subgroup, account type triple.
The number of any member's subgroups being monitored by the Heartbeat functionality will initially be limited to five, with each subgroup/account combination being allowed to submit at most two start heartbeat requests.
After heartbeat monitoring has been started, a heartbeat request must be received by the Xetra back end for the member, subgroup, account type triple every hrtBeatIntvlSec seconds (the current value of which will have been returned with the response to the start heartbeat request).
If an enter heartbeat request is not received within (hrtBeatIntvlSec + "the heartbeat deviation interval") seconds of when the last heartbeat request was received then all quotes will be deleted for the member, subgroup, account type triple in question.

In case of any concerned instrument being in the FREEZE status at the time of an automated quote deletion attempt, according to the market model the quote deletion for such instrument cannot be processed immediately. Such quote may then still be executed during the instrument state change from FREEZE to Continuous Trading or immediately thereafter, since the deletion request will not be stored in the processing queue but will be resent in short intervals until successful.

Heartbeat monitoring will be introduced for designated sponsor and Xetra BEST quotes.

5 Xetra BEST Enhancement

With Xetra Release 8.0 BEST Executors who intend to execute orders through Xetra BEST will be enabled to quote relative limits with a minimum quotation increment of 1/10 of a €cent.

The minimum price improvement can therefore be reduced from 0.01 to 0.001. Independent from the tick size of an instrument, BEST quotes can be entered with a price improvement of 0.001.

For BEST orders that are executed against the BEST quote the price is calculated with a precision of 3 decimal places independent from the tick size of the instrument. If the order quantity of a BEST order is higher than the best bid/ask in the order book a VWAP will be calculated. The VWAP will be rounded according to “kaufmännischer Rundung” with a precision of 3 decimal places. After the VWAP calculation the price improvement is subtracted/added and no further rounding is performed.

Example:

Orderbook contains offers for

2,000 shares @ 19.98
1,000 shares @ 20.00
2,000 shares @ 20.03

Buy order for 4,000 shares to be executed against the BEST quote.

VWAP calculation for 4,000 shares yields a price of:	19.9975.
Rounding according to “kaufmännische Rundung”:	19.998
Applying the minimum price improvement of 0,001:	19.997

The BEST price is broadcast and displayed with a precision of 3 decimal places.

6 XML Reports

In Xetra Release 8.0, XML Reports will be offered to exist in parallel to the traditional Xetra RAW Data Reports. In addition, text reports will be introduced on the basis of XML Reports, substituting the formatted Xetra Standard Reports.

The selection of any report in XML format will result in the provision of such report in both XML and the traditional RAW data format. With the Xetra release following Xetra Release 8.0, XML Reports will be the only supported machine-readable report format.

7 Technical Changes

7.1 Subscription and Retransmission Authorization

With Xetra 8.0 subscriptions to broadcast streams are only allowed within a valid login context. The introduction of this security concept allows data access authorization. For data access authorization, the field loginID of the request's control block (ReqCntrlT) used with VCI_Subscribe is not reserved any more, but has to be set to a valid ID established by a successful login to the related Xervice. For any invalid login ID, the new return code ELB_TECH_NOT_LOGGED_IN is returned.

With Xetra 8.0 a valid login context is needed for getting subscribed. Thus, losing the valid login context (forced by VCI_Logout, Xervice unavailable, VCI_Disconnect, losing the connection to GATE) means immediate termination of all subscriptions belonging to that login context.

7.2 Adaptation of the VALUES API Interface

Xetra Release 8.0 updates the VALUES API interface, which is the basis for all introduced functionality. For detailed information please refer to the document "VALUES API Modification Announcement Xetra Release 8.0".

Xetra Release 8.0 requires the installation of the new GATE version 3.5. Please note that members, who have GATE 3.3 installed, need to upgrade to GATE 3.4 first, before being able to install GATE 3.5. We recommend upgrading to GATE 3.4 immediately.

8 New XETRA J-Trader

Xetra Release 8.0 will offer a complete new version of the Xetra J-Trader GUI. Beside performance improvements and a reduced memory consumption an extension of the existing trading functionality is offered, including a whole bunch of new features like enhanced Export and Print functionality, Full Table Mode and Smart Sort and Find Capacity.

Profiles will be converted into the new Xetra J-Trader application. However due to the all-embracing changes in the technical GUI layer, it will not be possible to support other configurations, e. g. opened windows, background color, prefilled values, etc., that were created with the old Xetra J-Trader application.