X-pand into the Future

eurex circular 207/11

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Recipients: All Trading Members of Eurex Deutschland and Eurex Zürich, all Clearing Members of Eurex Clearing AG and Vendors

Authorized by: Jürg Spillmann

⚠ **High priority**

Eurex Release 14.0: Important Information about Simulation Start

Contact: Member Services & Admission team, tel. +49-69-211-1 17 00, e-mail: customer.support@eurexchange.com, Technical Account Manager, via VIP number or Eurex Customer Technical Support, tel. +49-69-211-1 12 00, e-mail: eurex-help@eurexchange.com

Content may be most important for:	**Attachments:**
➲ All departments	(on the Eurex website only) Please see the list of documents in this circular on page 3

Summary:

The Eurex Release 14.0 simulation is scheduled from **August 29, 2011** to **October 27, 2011**. Participation is strongly recommended. This circular provides details on the distribution of the Eurex Release 14.0 simulation software kits together with additional information about the simulation itself.

Scope of Eurex Release 14.0

1. **Clearing Enhancements**
   - Collateral Management enhancements
     i. Cash Collateral Release/Deposit via the @X-tract Clearing GUI
     ii. Enhanced Integration of Xemac®
   - Enhancements to Give-up functionality
     i. Automatic re-allocation for pending Give-up transactions
     ii. Give-ups from P1/P2 accounts for NCMs
   - Enhancements to Advanced Risk Protection
2. **Trading Enhancements**
   - Adaptation of the @X-ceed Trading GUI
3. **New Interfaces**
   - Eurex Market Data Interface
   - Eurex FIX Gateway
   - FIXML Clearing API
4. **Technical Enhancements and Changes**
   - Enhancements to the existing optional socket-based Interfaces and Reference Data
   - Changes to Quote Confirmation Broadcast
   - Decommissioning of Quote Functionality via VALUES API
   - Decommissioning of Block Auction Request Functionality
5. **Report Changes**
   - Enhancements of the Report TA111 All Active/Inactive Series
6. **Backward Compatibility**

Eurex Release 14.0: Important Information about Simulation Start

Distribution of Software Kits for Eurex Release 14.0 Simulation

From close of trading on Friday, August 19, 2011, until Tuesday, August 23, 2011, Eurex will distribute the following software kits via File Transfer Protocol (ftp) to the Member simulation environment for the start of Eurex Release 14.0 simulation on Monday, August 29, 2011:

- Oracle Solaris (Sparc)
- Oracle Solaris (x86) and
- Microsoft Windows

Distribution of the software will take place to the registered report nodes only.

Target directories for data transfers are:

- Oracle Solaris (Sparc): /opt/gate/transferdir/release01/sun
- Oracle Solaris (x86): /opt/gate/transferdir/release01/x86
- Microsoft Windows: <ftp-root directory>\release01\win

Please ensure to have at least 300 MB of free disk space available on the transfer directory of your report nodes to successfully receive the software.

The simulation kits should be installed according to the instructions contained in the read-me file that is transferred to the appropriate transfer directory and the information contained in the Eurex Release 14.0 Front-End Installation Guide.

Please note: It is imperative that files no longer used are deleted from the transfer directory before the transmission of the software takes place. Please ensure that the report nodes are connected to the Eurex® network as of 21:00 CEST on Friday, August 19, 2011.

Please contact your Technical Account Manager, via VIP number or Eurex Customer Technical Support via tel. +49-69-211-1 12 00, if the software kits have not been received by Tuesday, August 23, 2011.

As of Friday, August 19, 2011, the software will be made available for download in the Member Section of the Eurex website under the following path:

www.eurexchange.com > Member Section > Releases > Eurex 14.0 > Software

For direct access click on the following link:
https://www.eurexchange.com/members/releases/eurex14/kits_simulation_en.html

Should you encounter any difficulties when logging in to the Eurex Member Section, please contact our Service Point Team at tel. +49-69-211-1 78 88.

For new installations:
Before installing the simulation kit for Eurex Release 14.0 simulation, the GATE 3.5 software and the GATE 3.5 update kit 3 must be installed on all MISSes and workstations. If required, the GATE 3.5 software and the GATE 3.5 update kit 3 are available for download on the Eurex website. In order to activate the new settings, please restart the system after the installation of the GATE 3.5 software and the GATE 3.5 update 3 kit, respectively.

Technical Environment

The following MISS/Workstation combinations will be supported:

Supported MISS/Workstation combinations with Eurex Release 14.0	
MISS	Workstation
Oracle Solaris x86	Oracle Solaris x86
Oracle Solaris x86	MS Windows 7 (64 bit)
Oracle Solaris Sparc	Oracle Solaris Sparc
Oracle Solaris Sparc	MS Windows XP
Oracle Solaris Sparc	MS Windows 7 (64 bit)
MS Windows Server 2003	MS Windows XP
MS Windows Server 2008 R2 (64 bit)	MS Windows 7 (64 bit)

The operating system versions recommended with Eurex Release 14.0 are:

On the MISS:

- MS Windows 2008 Server R2 Foundation (64 bit)
- MS Windows 2003 Server (Service Pack 2)
- Oracle Solaris 10
    - HW 06/06 (Update 2) for Sparc
    - HW 10/08 (Update 6) for x86

On the workstation:

- MS Windows 7 Professional (64 bit)
- MS Windows XP Professional (Service Pack 3)
- Oracle Solaris 10
    - HW 06/06 (Update 2) for Sparc
    - HW 10/08 (Update 6) for x86

GATE 3.5 Kit:

GATE version 3.5 will remain unchanged.

Eurex Release 14.0 will make use of the Java Runtime Environment 1.6. For further information see http://java.sun.com/javase/6/webnotes/index.html

Please note: Installing a new Java version using the Java Update Installer will remove all previous Java versions, even if they were installed into separate directories. Members using the Eurex installation kit will not be affected by this, as the kit leaves previous versions untouched.

Should you have any questions, please contact the Member Services & Admission team at +49-69-211-1 17 00.

Accompanying documentation for the Eurex Release 14.0 Simulation

Eurex Release 14.0
Dokument
Eurex Release 14.0 – Member Simulation Guide
Eurex Release 14.0 – Front-End Installation Guide
Eurex Release 14.0 – Front-End Operations Guide
Eurex Release 14.0 – Front-End Access to Exchange Applications
Eurex Release 14.0 – Network Access to Exchange Applications
Common Sizing Guidelines (Eurex und Xetra/Xetra International Market)

The "Member Simulation Guide" is available on the Eurex website under the following path:

www.eurexchange.com > Member Section > Releases > Eurex 14.0

For direct access click on the following link:
https://www.eurexchange.com/members/releases/eurex14/software_changes_en.html

The other documents listed above are available under:

www.eurexchange.com > Member Section > Releases > Eurex 14.0 > Technical Manuals

For direct access click on the following link:
https://www.eurexchange.com/members/releases/eurex14/manuals_technical_en.html

Scope of Eurex Release 14.0

An overview of the scope of Eurex Release 14.0 and major new and enhanced features in detail has been provided with the Final Functional Release Notes and Final Technical Release Notes which are available in the Member Section of the Eurex website under the following path:

www.eurexchange.com > Member Section > Releases > Eurex 14.0

For direct access click on the following link:
https://www.eurexchange.com/members/releases/eurex14/software_changes_en.html

Below a short overview of Eurex Release 14.0 is given.

1. Clearing Enhancements

Collateral Management enhancements

- **Cash Collateral Release/Deposit via the @X-tract Clearing GUI**

  Clearing Members (CMs) will be able to request cash collateral withdrawals or cash collateral deposits (intraday) via the @X-tract Clearing GUI instead of sending a fax.

  Currently, Clearing Members can pledge cash as collateral with Eurex Clearing in two different ways:

  - Increase the setting of its Permanent Cash Balance, so that the Clearing Member's cash account will be debited for value next business day.

- Intraday, whilst covering an intraday margin call or an intraday cash exchange for securities. This happens via fax which is sent by the Clearing Member to the Eurex Clearing & Risk Operations department requesting the debit of its account.

In the future and in order to harmonise the request to withdraw cash with the current process for withdrawals of securities, the @X-tract Clearing GUI will be enhanced and the withdrawal request will be automatically processed in the Eurex Clearing System. To achieve this, the **Security Collateral Transaction Entry** window will have the option not only to show securities, but also receive another layer for the request to deposit/withdraw cash. The requested deposit/withdrawal amount shall be debited from/credited to, as the case may be, the respective account of the Clearing Member used for cash clearing transactions in the respective currency.

The enhancement allows an automation of intraday cash withdrawals and deposits. In the same way as there is a receipt confirmation for a delivered fax today, the Clearing Member will receive a confirmation for the intraday cash withdrawal or deposit request via the @X-tract Clearing GUI.

- **Enhanced Integration of Xemac®**

Eurex Clearing collateral pools can be administrated in Clearstream Banking's collateral management system Xemac®. In order to obtain full collateral deposit, withdrawal and substitution information independently in both systems, Eurex Clearing AG plans to fully automate the interface between Xemac® and the Eurex Clearing system.

More information will be provided in a later circular.

Enhancements to Give-up functionality

- **Automatic re-allocation for pending Give-up transactions**

With Eurex Release 13.0, Eurex Clearing already started to enhance the handling of not fully processed give-up transactions by introducing a ”clean-up” process during end-of-day processing. Thereby, all status (**P, M, G, N, R** and **U**) are set to **U**(ndesignated) and the referred give-up information is retained. In addition and starting with Eurex Release 14.0, Eurex Clearing will further reduce the manual workload on the Members’ side. An automated re-allocation process for all transactions with status **U**(ndesignated) will be implemented.

At the beginning of the next trading day this process will automatically reinstate the pre-batch status for all **U**(ndesignated) transactions by utilizing the referred give-up information retained from the previous trading day.

As a result no manual re-allocation is necessary for not fully processed give-ups from the last trading day. Members will, however, still have the possibility to change give-up details, where necessary.

- **Give-ups from P1/P2 accounts for NCMs**

Starting with Eurex Release 14.0, Non-Clearing Members (NCMs) will be able to use the Eurex Clearing give-up functionality to allocate trades from their proprietary accounts P1 and P2 to another exchange Member’s A-account.

As these trades still represent the own business of the NCM, the NCM has to ensure that it remains the beneficiary owner of the trades.

Furthermore, NCMs will have the possibility to use this functionality to correct take-up errors. Instead of initiating a position transfer to send back transactions accepted in error, the NCM can simply use this extended give-up functionality.

Enhancements to Advanced Risk Protection

With Eurex Release 13.0, Eurex Clearing introduced its “Advanced Risk Protection” service, a pre-trade risk management tool enabling Members to define individual risk limits for themselves or their associated trading Members (NCMs).

With Eurex Release 14.0, this service is extended to cover as well EurexOTC trade entries by adding a feature called “Risk Adjusted Maximum Order Size” replacing the existing maximum wholesale quantity, maintained via GUI-window Product Assignment Maintenance. To support the test on the Members’ sites, the currently maintained “Maximum Wholesale Quantity” will be converted, based on the actual valid margin parameters, into a corresponding “Risk Adjusted Maximum Order Size”.

Based on the actual margin parameter/current underlying price and the contract size entered, a risk amount in product currency will be calculated with the entered OTC transaction and checked against the maintained risk amount. The calculated risk amount is not identical with the resulting additional margin requirement out of the trade but gives an indication about the risk potential related to the trade.

2. Trading Enhancements

Adaptation of the @X-ceed Trading GUI

With Eurex Release 14.0, the @X-ceed Trading GUI will no longer support entry of non-persistent orders. Please note, however, that for non-persistent orders entered via other applications, the following facilities will still be supported:

- Order modification
- Order deletion and
- Order inquiry.

The @X-ceed Trading GUI will provide dynamic updates, e.g. in the **Market Depth Trading** and **Own Order Overview** windows for persistent orders only.

3. New Interfaces

As part of Deutsche Börse Group’s IT strategy for the implementation of a new high-performance trading infrastructure, Eurex will introduce two new optional interfaces with Eurex Release 14.0 in addition to the existing socket interfaces. The purpose of these interfaces is to support the replacement of the current VALUES API interface in the medium term. The new interfaces cover the following functionality:

Please note: In order to access the new optional interfaces, changes to existing or additional connectivity will be required. More information concerning connectivity options in conjunction with the new interfaces can be found in Eurex circular 183/11 “Technology Roadmap and Eurex Release 14.0: Extended Information”.

Eurex Market Data Interface

In Eurex Release 14.0, a new Market Data Interface for the dissemination of price level aggregated, netted order book depth data in multicast format will be made available. The netted Market Data Interface will utilize the FIX Adapted Streaming protocol (FAST) and have low bandwidth requirements. The Market Data content provided will be the same as the Market Data content via VALUES API, i.e. order book depth of ten for some futures and “top of book” for all other futures and all options products. Cross and Quote Request information will also be included in the new interface.

Some key design features of the Eurex Market Data Interface are as follows:

- No reference data will be provided. The reference data must be obtained either via the Enhanced Broadcast Solution Interface or via the enhanced TA111 report.
- Snapshots and Deltas will be disseminated “in-band” (i.e., both deltas and snapshots are carried on the same multicast address). Unlike the Enhanced Broadcast Solution snapshots, they will contain information not disseminated via delta messages and must therefore be processed.
- Delta message sequence numbers will be sent per-product rather than per-contract (as with the Enhanced Broadcast Solution).
- It is planned that the product grouping will be different to the current Enhanced Broadcast Solution groups but the same as with VALUES API.
- Introduction of a new stream for Ticker (external price feed) data on a multicast basis

The Eurex Market Data Interface will use a new set of message templates which will also be used for the Market Data Interface which will be implemented for Eurex’s new trading system in the future.

Eurex FIX Gateway

The Financial Information eXchange (FIX) protocol has become the new standard of the financial industry for pre-trading and trading communication.

As part of Deutsche Börse Group's interface strategy planned to facilitate participant access to Eurex and to enable participants to decommission the MISS architecture in the medium term, Eurex will offer a standard FIX interface supporting FIX versions 4.4 and 4.2 with Eurex Release 14.0.

The Eurex FIX Gateway supports mainly three functional blocks:

- Order Handling
- Strategy Creation and
- Trade Capture on Member Level

Customers will use dedicated FIX sessions in the context of Order Handling (including Strategy Creation) and back-office activities such as Trade Capture.

- **Order Handling**

  The Eurex FIX Gateway will support Client Order ID chaining. In FIX it is a standard that the Client Order ID changes on every request. FIX customers use the Client Order ID to track each individual request. For example when sending a Replace Request for an order in FIX, a new client Order ID must be generated for the cancel request. In this way, FIX customers are able to find and track individual requests by means of their Client Order ID.

  The context for all order-related messages will be the FIX session, i.e. only orders entered by the corresponding FIX session will be maintainable. At the start of business day all active orders will be transmitted via the respective FIX session. The messages will be transmitted using the FIX Execution Report.

- **Strategy Creation**

  The FIX trading session will support the creation of the specified strategy on Eurex. Only after a specific strategy has been requested and created, it will be possible to enter orders or quotes for this strategy. An existing strategy can be re-requested. This function is similar to a quote request.

- **Trade Capture on Member Level**

  The context for the back office session for all trade capture messages will be the Eurex Member. All trade information the Member is authorised to see will be provided within one stream. For Clearing Members, this feature includes the provision of all trade information of all of its Non-Clearing Members.

  Only information for book trades and data not related to clearing is provided in this context. This also implies that no information about Position Transactions is available.

FIXML Clearing API

To enable Eurex Members to access the relevant post-trade services independent of the MISS-based Member architecture, an optional FIXML API will be developed. The new API will encompass those VALUES API requests which are currently used by Eurex member applications or by third-party application providers via automated applications. The FIXML connection will be offered by re-use of the already existing Enhanced Risk Solution interface via AMQP.

4. Technical Enhancements and Changes

Enhancements to the existing optional socket-based Interfaces and Reference Data

Enhanced Transaction Solution Interface

- **Support for Cross Requests**

  Currently the Enhanced Transaction Solution interface only supports the entry of Quote Requests. To support the additional entry of Cross Requests the Interest Type Code field of the (User) Enter Trading Interest message, will be extended by an additional valid value “C” (Cross Request).

- **Implementation of a Subscription Mechanism**

  Currently the Enhanced Transaction Solution interface does not provide any broadcast streams and no facility currently exists by which information provisioned via the interface can be configured.

  Recoverable “match events” are provided on Member level via the Enhanced Confirmation Solution interface, introduced with Eurex Release 13.0. Direct responses (TM Response Notification and TM Information Notification), provided by the Enhanced Transaction Solution interface, are received in the correct functional sequence and provide fast and unreliable match event information on session level. As a result, member applications may potentially have no requirement for recoverable Order Status Notifications.

  The implementation of a subscription mechanism with Eurex Release 14.0 will enable Members to opt for the receipt of recoverable order status notifications on a session level. In the event that a session has not subscribed to Recoverable Order Status Notifications (TM Event Notification), the messages will not be provided and hence the message traffic will be reduced delivering a lower latency. For subscription purpose an addition flag will be added to the (User) Session Logon request. In order to minimize impact for Members, the default for a session will be the receipt of recoverable order status notifications and therefore they must explicitly be unsubscribed.

- **Additional Field in the (User) Inquire Products Request**

  In line with the Eurex Technology Roadmap an additional field “tradingSystemCode” will be added to the (User) Inquire Products request. The new field indicates the trading system on which the product can be traded. This field is reserved for future use.

- **Introduction of a new Enhanced Transaction Solution session type**

  To provide Members with a higher degree of flexibility in choosing the appropriate infrastructure best suited to their trading models, Eurex will introduce an additional Enhanced Transaction Solution session type. Whilst maintaining the identical functionality as existing sessions, the new session type will have a lower throttle setting of 50 transactions per second and will be offered at a reduced price.

Enhanced Broadcast Solution Interface

- **Enhancement of the Version Information Message (Packet Header)**

  As the length of the packet header is not currently fixed, applications are required to decode each packet header of Enhanced Broadcast Solution messages in order to verify completeness of data via source A and B and to detect duplicates. In addition, sequence numbers are currently generated per source id, which means that all broadcast groups have to be subscribed to in order to ascertain packet loss.

  In Eurex Release 14.0 the packet header will be byte/vector-encoded and enhanced with the following fields:

  - **Template ID**
    A fixed value to indicate the packet header.
  - **Source ID**
    Unlike the current implementation this field will contain a sequentially incrementing value unique for each instance of a broadcasting process which will not fall back intraday.
  - **Packet Sequence Number**
    Incremented for every message sent via the Enhanced Broadcast Solution. Applications can use this field combined with the source id to determine whether the packet in question has already been received and hence discard duplicate packets quickly without having to first decode them.
  - **Dispatch Time**
    The time when the broadcasting process actually dispatches the message onto the network.
  - **Load Indicator**
    This field will provide a measure of how heavily loaded a specific Eurex matching engine is. It contains the duration (in microseconds) from the time the “oldest” order/quote in a delta message in the given datagram has entered the Eurex matching engine to the Dispatch Time of the datagram.

  Important: Due to the changes in the Packet Header of the Enhanced Broadcast Solution **all** feed handlers must be modified to support the new format.

- **Additional Fields in the Static Reference Data**

  In line with the Eurex Technology Roadmap additional fields will be added to the reference data:

  - A field allowing Members to determine whether a product is processed by Eurex or on the new Trading Platform to be introduced in the future.
  - The multicast address for the Eurex Market Data Interface.
  - Inclusion of the remaining fields from the Enhanced Transaction Solution reference data which are currently missing.

To assist Members with the modification of their feed handler applications to the new message format, Eurex has published canned data and a read-me file, detailing the contents, for the Enhanced Broadcast Solution on the Eurex website under the following path:

www.eurexchange.com > Member Section > Releases > Eurex 14.0 > Test Data for Simulation

For direct access click on the following link:
https://www.eurexchange.com/members/releases/eurex14/testdata_simulation_en.html

Please note: The multicast addresses for the products FGBS, FGBM, FESX, FSMI, FDAX, OSMI, OES1 and ODAX will change with the introduction of Eurex Release 14.0 simulation. The new multicast addresses can be obtained from the reference data.

Enhanced Confirmation Solution

With Eurex Release 14.0 a new application message (User) Subscribe All Events will be implemented to support the generic subscription of trade confirmations on Member level. For example, a Clearing Member can use this message to subscribe to the broadcasts for all of its Non-Clearing Members and other Members for whom it is authorised to receive the broadcast. Subscription per Trading Member will not be required anymore.

With Eurex Release 14.0 the (Foreign) Trade Event message (trade notification) will be enhanced to contain both the “clientOrderID” and the “tradeQty” (the total trade quantity of the trade).

Enhanced Risk Solution

With Eurex Release 14.0 the reply-to routing key is not automatically prefixed with the Member ID anymore. The reply-to routing exchange has to be set to the response exchange (“eurex.response”) by the Member`s client application. This makes the interface not backward compatible, unless the clients (Members) have already specified their Member ID.

For more details please refer to the “Enhanced Risk Solution Interface Specification, Simulation Version” on the Member Section of the Eurex website under the following path:

www.eurexchange.com > Member Section > Releases > Eurex 14.0 > Interfaces > Enhanced Risk Solution

For direct access click on the following link:
https://www.eurexchange.com/members/releases/eurex14/interfaces_enhancedrisk_en.html

Changes to Quote Confirmation Broadcast

With the introduction of Eurex Release 14.0 the Eurex® system will no longer send a quote confirmation broadcast upon single quote entry or deletion of options and price/time futures.

Quote confirmations will still be sent if one of the following events takes place:

- violation of Market Maker protection limits
- heartbeat loss
- violation of risk limits
- loss of an Enhanced Transaction Solution session
- trading interruption or
- execution of a quote.

Decommissioning of Quote Functionality via VALUES API

For the next phase of the Eurex Technology Roadmap, a stepwise decommissioning of trading functionality from the VALUES API will start after the introduction of Eurex Release 14.0. In the first quarter of 2012 decommissioning of quoting functionality for third-party applications via VALUES API is planned, followed by further steps by the end of the fourth quarter of 2012. More information will be provided in due course.

Decommission of Block Auction Request Functionality

From production start of Eurex Release 14.0, it will no longer be possible to enter Block Auction Requests into the Eurex® system. Furthermore, the reports TC548 Block Auction Maintenance and TC820 DNTP/IPS Daily Trade Report will be decommissioned.

5. Report Changes

Enhancement of the Report TA111 All Active/Inactive Series

Eurex Report TA111 All Active/Inactive Series currently contains information regarding contracts/series available for the next trading day. Some of the reference data fields which are provided via the Enhanced Transaction Solution interface are currently missing in this report.

From Eurex Release 14.0 onwards report TA111 All Active/Inactive Series, can be used as a source for reference data, particularly for those Members who use the Eurex FIX Gateway and Eurex Market Data Interface. For this purpose, the XML version of report TA111 will be enhanced to include some of the missing fields.

6. Backward Compatibility

Several features mentioned above do not provide backward compatibility. Member applications which cannot handle these changes must be adapted accordingly.

Backward Compatibility of Eurex Release 14.0	
New Features/Enhancements	**Backward compatible Y (Yes) / N (No) / N/A (Not Applicable)**
1. Clearing Enhancements	
Collateral Management enhancements	
• Cash Collateral Release/Deposit via the Eurex @X-tract Clearing GUI	Y
• Enhaced Integration of Xemac®	N/A
Enhancements to Give-up functionality	
• Automatic re-allocation for pending give-up transactions	N/A
• Give-ups from P1/P2 accounts for NCMs	N/A
Enhancements to Advanced Risk Protection	**N/A**
2. Trading Enhancements	
Adaptation of the Eurex @X-ceed Trading GUI	**N/A**
3. New Interfaces	
Eurex Market Data Interface	**New**
Eurex FIX Gateway	**New**
New Clearing API based on FIXML	**N/A**
4. Technical Enhancements and Changes	
Enhancements to the existing optional socket-based Interface and Reference Data	**N**
Changes to Quote Confirmation Broadcast	**N**
Decommissioning of Quote Functionality via VALUES API	**N**
Decommissioning of Block Auction Request Functionality	**N**
5. Report Changes	
Decommissioning of User/Trade Acces Reports	**N**
Enhancement of Report TA111 All Active/Inactive Series	**N**

August 15, 2011