X-pand into the Future

# e u r e x *circular 098/01*

**Date:** Frankfurt, 27 September, 2001
**Recipients:** All Eurex members and vendors
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## 1. Eurex Release 5.0 - Final Technical and Functional Release Notes
## 2. Data Conversions

**Related Eurex Circulars:** 027/01

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| **Content may be most important for:** | **Attachments:** |
|---|---|
| ➲ All Departments | 1. Eurex Release 5.0 Final Technical Release Notes<br>2. Eurex Release 5.0 Final Functional Release Notes |

### 1. Eurex Release 5.0 - Final Technical and Functional Release Notes

You will find attached the Final Technical and Functional Release Notes of Eurex Release 5.0. This release will be available in the Simulation environment from 08 October, 2001 and will be in Production from 03 December, 2001.

### 2. Data Conversions

Members should be aware that as part of the transition from Release 4.1 to Release 5.0 certain data conversions will take place as follows:

**2.1 User Profile Conversion**

@X-ceed and @X-tract 4.1 user profiles are converted automatically into Release 5.0 profiles. However, there are some restrictions in the conversion that are summarized in section 1.1.3 of the Technical Release Notes.

Note that Eurex does not support the conversion from the Galaxy-based X-ceed 4.1 application to @X-ceed 5.0 user profiles. Therefore, in order to be fully prepared for Release 5.0 on the date of production start, traders who are still using the X-ceed trading application are advised to run the Release 4.1 @Xceed application in their current production environment and define the profiles required prior to 03 December, 2001.

**2.2 RAL Conversion**

Due to the replacement of the FMS Clearing and security administration screens by GUI windows, certain Resource Access Levels (RALs) have changed in Release 5.0. The automatic conversion, and the initializing of RALs associated with Clearing, are described in section 3 of the Technical Release Notes.

**2.3 Transaction ID Suffix Conversion**

The algorithm used to handle the conversion of Transaction ID suffices between Release 4.1 and Release 5.0 is described in section 2.2.2 of the Technical Release Notes.

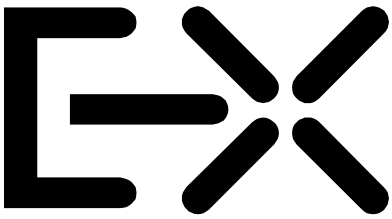
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# Eurex 5.0

Technical Release Notes

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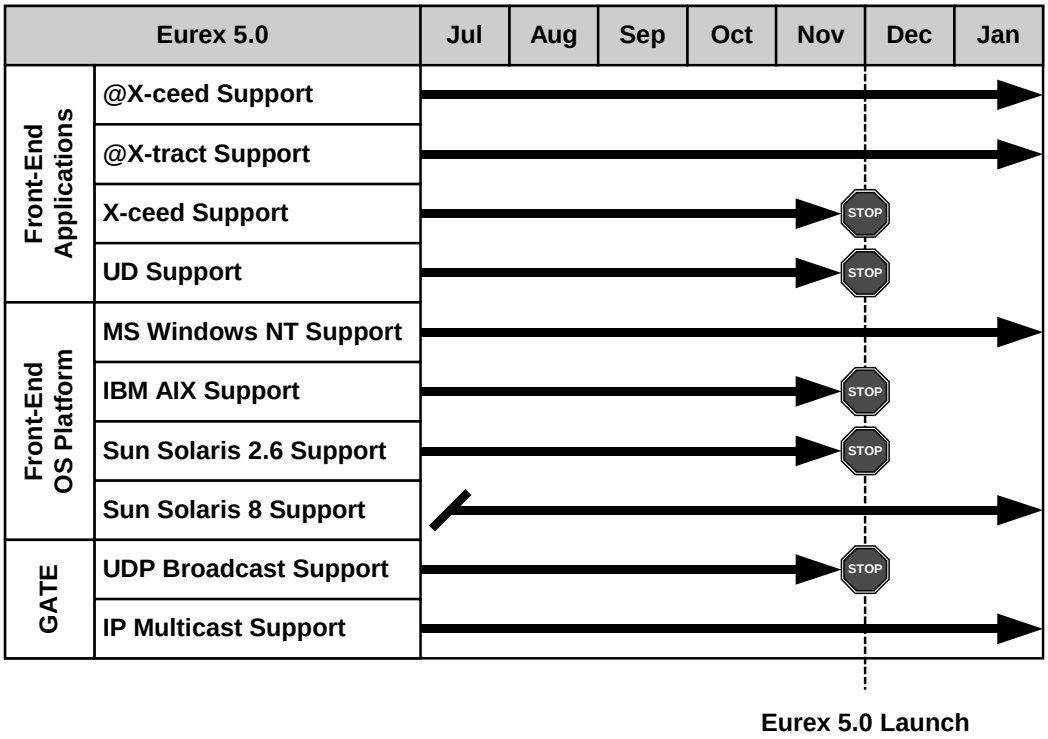

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# 1 Introduction

This document describes the technical changes to front end support, operating system support, and member interfaces, as well as general changes that are introduced or modified as part of Eurex 5.0. Changes to the GATE and VALUES interfaces are not described in this document, please refer to the related modification announcements.

The following diagram shows the simplified Eurex 5.0 platform support for 2001:




In this document the term 'Eurex 5.0' refers to the electronic system that serves both organizations Eurex *and* EEX in common.

If applicable, there will be separate release notes for CBoT.

## 1.1 Front End - Support

### 1.1.1 User Device Front End - Support Termination

User Device / Satellite technology is no longer supported with the introduction of Eurex 5.0.

Members with UD terminals are advised to let the Eurex Technical Help Desk change the UD report node to a MISS report node several weeks before production start of Eurex 5.0.

### 1.1.2 MISS-based Front End – Eurex Application Changes

The support for the Galaxy-based trading front end software (X-ceed) is terminated with the introduction of Eurex 5.0. Eurex trading functionality is exclusively supported with the enhanced Java-based @X-ceed application.

The updated Java-based trading and clearing front end GUIs (@X-ceed and @X-tract) include the functionality of the current FMS screens as described in the Preliminary Functional Release Notes. Therefore the current separate MISS-based FMS application will become obsolete.

Members replacing the legacy X-ceed trading front end with the @X-ceed application are advised to consult the “Deutsche Börse Front End Sizing Guidelines” for details on the hardware requirements of @X-ceed.

### 1.1.3 User Profiles

Please note that there is no user profile conversion utility available for the conversion of existing X-ceed profiles to @X-ceed profiles. However, @X-ceed and @X-tract 4.1 profiles are converted automatically to 5.0 profiles. The scope of the conversion is:

- Convert all parts of the user profiles for @X-ceed (except focus position)
- Convert some parts of the user profiles for @X-tract (Member List, profiles without external underlyings, and the Text Field Configuration)

## 1.2 Operating System Platform Support

With the introduction of Eurex 5.0, the new Eurex MISS-based front end is provided on two platforms:

- Intel PC / Windows NT 4
- Sun / Solaris 8

IBM / AIX support for the MISS-based front end will be terminated with the introduction of Eurex 5.0.

Support for UD OpenVMS and AIX platforms will be finally withdrawn on the 30th of November 2001.

For details on the supported operating system versions, patch levels and hardware requirements for MISSs and WSs, please refer to the “Deutsche Börse Front End Sizing Guidelines”.

With the introduction of GATE 3.0 it is mandatory to upgrade existing member Sun Solaris 2.6 front end machines to Sun Solaris 8. Details on the Sun OS upgrade are available in the Eurex Circulars 034/01 and 062/01.

## 1.3 UDP Multicast to IP Multicast

The introduction of Eurex 5.0, scheduled for December 2001, is based on the GATE version 3.0, which only supports IP Multicast.

**Support for the UDP Broadcast protocol is not continued in GATE Release 3.0. Consequently, the Broadcast Bridge software is now obsolete.**

For Eurex members, this means that all MISS/workstation LANs must be configured to support IP multicast before the introduction of Eurex 5.0. As IP multicast is already supported in the current GATE 2.1 release, members may make the change at any time.

Members running a combined Eurex/Xetra MISS should also refer to Xetra Circular 014/01.

Members running CBOT/Eurex multi market installations for joint CBOT/Eurex access were informed about the update procedure with Eurex Circular No. 046/2001.

The use of IP multicast requires no changes to the VALUES API, to broadcast data content, or to the sublist.dat file. The use of IP multicast offers the following advantages:

- MISSs need no longer be in the same LAN.
- Remote workstations (broadcast bridge forwarder and broadcast bridge receiver) are obsolete.
- TTL (Time To Live) scope can be configured.
- Separate multicast addresses can be defined for each broadcast stream type. Therefore filtering based on stream type is possible.

All machines in a MISS group have the same multicast addresses.

The documentation of a recent Eurex IP Multicast workshop is available on the web-site “www.eurexchange.com” under the path “Info for Members / Special / a/c/e 2.0”.

## 1.4 Interface Modifications

The following interfaces, excluding GATE and VALUES, change as a result of functional enhancements:

- Raw Data Interface
- Financial Data Disseminator (FDD)
- File Interface Layout – FPTHEA
- File Interface Layout – FPMGBPRM

For changes regarding the VALUES interface, please refer to the related announcements:

- "VALUES API – Modification Announcements Overview and Volume 1 – Call Interface" as published in Eurex Circular 043/2001.
- "VALUES API – Modification Announcements Volume 2 – Eurex Application Requests, Responses and Subscriptions"

For changes regarding GATE, please refer to the related GATE documentation – "GATE 3.0 Technical Release Notes".

Detailed descriptions are published in the documentation and can be found on the Eurex web-site "www.eurexchange.com" under "Market Place / Programming to Eurex".

Updated sizing information is provided in the "Deutsche Börse Front End Sizing Guidelines".

# 2 General Information

This chapter gives a short overview of changes that affect the technical environment of the Eurex and EEX derivatives market system.

The technical changes result from the following Eurex 5.0 functional enhancements as described in the Functional Release Notes:

The focus of Eurex 5.0 is the introduction of the following enhancements:

- New OTC Volatility Trade Entry
- New set of formulas in the Eurex OTC - Basis Trade Facility (BTF)
- Theoretical Price Enhancements for Eurex Options
- Introduction of Cascading Expiration for EEX Products.
- Completion of Clearing GUI (including Security Windows)
- CSD Selection per security
- Automatic exercise of in-the-money options
- An increased number of Trade Adjustments
- Extended automatic MISS startup
- New automatic Theo file extraction

Eurex/EEX provides extended graphical user interfaces (GUIs) for trading and clearing. The updated Java-based trading and clearing front end GUIs (@X-ceed and @X-tract) will include the functionality of the current FMS screens. Therefore the separate MISS-based FMS application is obsolete.

## 2.1 Front End Performance Enhancements

On the front end (MISS/WS) performance enhancements in the broadcast sector are introduced to reduce CPU load on the MISS and reduce network load of the member LAN.

### 2.1.1 Multi-Member MISS

With the introduction of configurable access control to private broadcast data on the front end, the support for operation of Multi-Member MISSs is enhanced.

## 2.2 New Processing of Trade Adjustments – Layout Changes

Here the changes resulting from the functional enhancement of an increased number of trade adjustments, as described in the Functional Release Notes, are summarized. Another detailed

example of the new processing of trade adjustments and trade reversal enhancements is shown in Eurex Circular 102/01.

### 2.2.1 Trade Adjustments - VALUES Change Summary

The current Eurex Release 4.1 concept of handling trade adjustments (Trade Separation, Open/Close Adjustment etc.) involves the five-byte field “trnIdSfxNo”. One byte is used to signify each adjustment that the trade has undergone. Trades that have undergone no adjustments have this field blanked out. This concept does not allow for a sequence of more than five adjustments to one trade.

In the enhanced concept introduced with Eurex 5.0, “trnIdSfxNo” holds a numeric, consecutive value that uniquely identifies one transaction within the set of all transactions originating from the same trade. It is possible to identify the “parent” transaction by evaluating the new field “trnIdSfxNoPnt”, which holds the parent transaction’s “trnIdSfxNo”. Please note that several transactions may share the same parent.

The original trade has “trnIdSfxNo”=”00000”; since it does not have a parent transaction the “trnIdSfxNoPnt” field does not hold meaningful data.

In addition, two new fields are introduced: The first one (“trnHistAdjInd”) indicates if a transaction is an adjustment to a trade from the previous business day (Historical Trade). The other one (“trnAdjStsCod”) specifies if the transaction is adjusted, if it is a reversal transaction, or if it is still available for adjustment.

The modified Trade Adjustment concept is summarized in the Functional Release Notes.

For full details regarding the VALUES interface changes, please refer to the related modification announcements.

### 2.2.2 Conversion of Eurex 4.1 Transaction ID Suffices to Eurex 5.0

In order to identify “Historically Given-up” positions after the production start date of Eurex 5.0, the existing Eurex 4.1 transaction ID suffices are converted to the new Eurex 5.0 format.

The algorithm uses a lookup table for the character set that appears in 4.1 style suffix IDs. This table is as follows:

| Character | digitValue |
|---|---|
| SPACE: | 0 |
| '1' | 1 |
| '2' | 2 |
| '3' | 3 |
| '4' | 4 |
| '5' | 5 |
| '6' | 6 |
| '7' | 7 |
| 'G' | 1 |
| 'T' | 2 |
| 'H' | 1 |
| 'N' | 2 |

Starting with a value of newSuffix = 0, for each character, in turn in the old suffix (including the spaces), the following calculation is applied:

newSuffix = (newSuffix * 8) + digitValue

e.g. for suffix ’12G ’:

| | | | | |
|---|---|---|---|---|
| Suffix position 1: | Character ’1’: | digitValue 1: | newSuffix = (0 * 8) + 1 | = 1 |
| Suffix position 2: | Character ’2’: | digitValue 2: | newSuffix = (1 * 8) + 2 | = 10 |
| Suffix position 3: | Character ’G’: | digitValue 1: | newSuffix = (10 * 8) + 1 | = 81 |
| Suffix position 4: | Character ’ ’ | digitValue 0: | newSuffix = (81 * 8) + 0 | = 648 |
| Suffix position 5: | Character ’ ’ | digitValue 0: | newSuffix = (648 * 8) + 0 | = 5184 |

This calculated value is quoted with leading zeros as a five digit number, e.g. ’05184’

### 2.2.3 Trade Adjustments - Affected Reports

The following list of reports are modified as a result of the new processing of trade adjustments:

- RPTCB010 - Position Detail
- RPTCB110 - Account Transfer Exception
- RPTCB102 - Cash Settled Contracts
- RPTCB130 - Give-Up Trade History
- RPTCB140 - Accepted Give-Up Trades
- RPTCB150 - Take-Up Trade History
- RPTCB160 - Accepted Take-Up Trades
- RAWCB010 - Position Detail (Raw Data)
- RAWCB102 - Cash Settled Contracts (Raw Data)

Details on the raw data report modifications of the RAWCB010 are provided in chapter 4.1 of this document.

### 2.2.4 Trade Adjustments - Changes to VALUES application requests

The following application requests use the transaction ID suffix and are subject to change:

#### 2.2.4.1 Sent by end-user application (Request)

- Accept Give-Up Transaction
- Accept Take-Up Transaction
- Delete Give-Up Transaction
- Enter Give-Up Transaction
- Enter Take-Up Transaction
- Modify Give-Up Transaction
- Reject Take-Up Transaction
- Undesignate Give-Up Transaction

#### 2.2.4.2 Received by end-user application (Response):

- Inquire Give-Up
- Inquire Historical Position Transactions
- Inquire Position Detail
- Inquire Take-Up
- Subscribe Give-Up/Take-Up
- Subscribe Trade Confirmation

#### 2.2.4.3 Sent and Received by End-User Application (Request and Response):

- Enter Historical Trade Transfer
- Enter Trade Account Transfer
- Enter Trade Open/Close Adjustment
- Enter Trade Separation

In request structures, the old-style “trnIdSfxNo” will be replaced by two fields, which are the new-style “trnIdSfxNo” and the “trnHistAdjInd”.

In response structures, the fields are “trnIdSfxNo” (new-style), “trnIdSfxNoPnt”, “trnHistAdjInd” and “trnAdjStsCod”.

#### 2.2.4.4 Backward Compatibility (Layout Compatibility only)

Note: Not all Application Requests are covered.

End-user applications developed and compiled for Eurex Release 4.1 send AVN_041 as application version identifier. These can use the layouts (byte offsets of data fields) specified with Eurex Release 4.1, even when using application requests with “trnIdSfxNo” inside. However, the field “trnIdSfxNo” does not deliver the old-style data available within “native” R4.1. Instead, only minimal information is supplied: For an original trade, the field is filled with spaces. Otherwise, it holds a different unique value.

Since an end-user application using AVN_041 has no way of knowing the old-style suffix, the following application requests cannot be used and are not supported for end-user applications using R4.1 backward compatibility:

- Enter Historical Trade Transfer
- Enter Trade Account Transfer
- Enter Trade Open/Close Adjustment
- Enter Trade Separation
- Accept Give-Up Transaction
- Accept Take-Up Transaction
- Delete Give-Up Transaction
- Enter Give-Up Transaction
- Enter Take-Up Transaction
- Modify Give-Up Transaction
- Reject Take-Up Transaction
- Undesignate Give-Up Transaction

All end-user applications that use these application requests must be changed to implement the new logic and use the new application version number (AVN_050). In addition, all applications that use the field “trnIdSfxNo” (other than checking for spaces) must be changed.

## 2.3 Extended Automatic MISS Restart

With the introduction of Eurex 5.0, members can define the attempt frequency and interval in which their MISS will try to restart if the start-of-day fails. For this, the following two new entries are defined in the [EUREX.Properties] section of the EUREXmbr.ini file:

Restarts = nn
RestartDelay = mm

where nn = number of attempts to restart (nn=0 means no automatic restart), and
mm = minutes between restarts (values below 3 minutes are not allowed, the next restart will then be performed after 3 minutes).

The entry values can be modified by members using the ConfigurationUtility. Select the following menu items:

EUREX Configuration -> EUREX Basic Configuration Menu:

5 EUREX Xervice Restart Attempts
6 EUREX Xervice Restart Interval.

## 2.4 New Automatic Theo File Extraction

With the introduction of Eurex 5.0, members can define the attempt frequency and interval in which the Theo files should be extracted. The mechanism is similar to the automatic MISS restart described above. The following two new entries are defined in the new [EUREX.TheoFileExpansion] section of the EUREXmbr.ini file:

Attempts = nn
Interval = mm

where nn = number of attempts to extract (nn=0 means no automatic file extraction), and
mm = minutes between extracts (values below 3 minutes are not allowed, the next extract attempt will then be performed after 3 minutes).

The entry values can be modified by members using the ConfigurationUtility. Select the following menu items:

EUREX Configuration -> EUREX Basic Configuration Menu:

7 EUREX Auto Theo File Extract Attempts
8 EUREX Auto Theo File Extract Interval.

In the EUREX Configuration menu the old menu item 12 (Transfer theo price file) was replaced by the submenu item 12 - Theoretical Prices File Menu, which contains the following items:

1 Transfer & expand theoretical price file (this is the old menu item 12)

2 Expand theoretical price file (if the theo price file is not found, no new file transfer request is performed)

3 Display scheduled expand EUREX theoretical prices file jobs

4 Add scheduled expand EUREX theoretical prices file job

5 Delete scheduled expand EUREX theoretical prices file job

If the member requests a scheduled file expansion job using menu item [3], the theo file script will be automatically executed on the defined dates and times. If the new Theo price file has not been transferred at the time of the scheduled file expansion job execution a new file expansion job is queued according to the defined “Attempts” and “Interval” entries.

# 3 Changes in Resource Access Levels (RAL) for Eurex 5.0

## 3.1 Change Overview

The replacement of User Devices by MISS Servers and the removal of the FMS screens are two major changes from Eurex 4.1 to Eurex 5.0. One consequence of these changes is that all User Device screens that the Members access are now replaced by VALUES API requests.

These changes impact the security surrounding the user's access to the various Eurex components. This chapter is intended to supply Members with detailed information about these changes.

## 3.2 User Authorization

User authorization is implemented by means of Resource Access Levels (RAL). Historically, one entry is allocated to each User Device screen and other entries are allocated to the various SHIFT functions associated with screen C100.

All resources associated with a RAL are defined by a resource name and a new resource position code (e.g. Contract Overview, 206).

With Eurex 5.0, each VALUES API request that accesses the Back End is associated with a particular RAL entry. It is possible for two or more functionally related requests to be associated with the same RAL entry. Each user is given a RAL profile. This profile determines which requests the user may access. Some RAL entries have multi-level access. In such cases, the request ID determines the minimum required level needed before that particular request is honored. The profile shows the access level that the user is granted. The following are the multi-level access definitions:

No Access (Level = 0)

Read-only Access (Level = 1)

Read-Write Access (Level =2)

Read-Write-Delete Access (Level = 3)

## 3.3 New RALs with Eurex R5.0

While many old RALs are not used in Eurex R5.0, there are ten new RALs. When migrating from Eurex R4.1 to Eurex R5.0, some of these new RALs are copied from other RALs (User details, Settlement price inquiry and Vola trade). One RAL (Contract Overview) is composed of four old RALs. Six clearing RALs are initialized with default values.

### 3.3.1 Copies of other RALs

- User Details (new RAL position code 128)

  This RAL is a copy of Product Assignment, since both entries shared one RAL in Eurex R4.1.

- Settlement Price Inquiry (new RAL position code 129)

  This RAL is a copy of Product State. Both entries shared one RAL (Product State Inquiry) in Eurex R4.1.

- Vola (new RAL position code 247)

  This RAL, newly introduced with Eurex 5.0, is a copy of the RAL value for Block Trade Entry (formerly 1401), and it defaults to “0”.

### 3.3.2 Merging of old RALs

- Contract Overview (new RAL position code 206)

  This RAL is a combination of four old entries. It defaults to the highest value of the RALs associated with the following FMS screens:

  - Options Contract Overview (C050)
  - Futures Contract Overview (C055)
  - Options Market Statistics (C060)
  - Futures Market Statistics (C065)

  If the highest value associated with these screens is higher than “1”, the new RAL value defaults to “1”.

- User Setup (new RAL position code 101)

  This RAL is a combination of seven old entries. It defaults to the highest value of the RALs associated with the following FMS screens:

  - User Setup – Clearing Member (A042)
  - User Setup –Member Screens (A043)
  - User Setup – Trading Screens (A044)
  - User Setup – Trading Commands (A045)
  - User Setup – Futures Resources (A046)
  - User Setup – API / Trading API (A047)
  - User Setup – Clearing API (A048)

  The new RAL value for User Setup (new RAL position code 101) is identical to the old value of the User Setup – Clearing Member (A042).

### 3.3.3 Six new Clearing RALs

- CSD Information (new RAL position code 241)

  RALs for Eurex members: General and Direct Clearing Member RALs are set to “1”, Non-Clearing Member RALs are set to “0”.
  RALs for EEX members are set to “0”.
  RALs for all traders are initialized with “0”.
- Custodian Maintenance (new RAL position code 242)

  RALs for Eurex Members: General and Direct Clearing Member RALs are set to “1”, Non-Clearing Member RALs are set to “0”.
  RALs for EEX members are set to “0”.
  RALs for all traders are initialized with “0”.
- Member Overview (new RAL position code 243)

  RALs for Eurex members: General and Direct Clearing Member RALs are set to “1”, Non-Clearing Member RALs are set to “0”.
  RALs for EEX members are set to “0”.
  RALs for all traders are initialized with “0”.
- CSD – Clearer Account (new RAL position code 244)

  RALs for Eurex Members: General and Direct Clearing Member RALs are set to “1”, Non-Clearing Member RALs are set to “0”.
  RALs for EEX members are set to “0”.
  RALs for all traders are initialized with “0”.
- CSD – Security Overview (new RAL position code 245)

  RALs for Eurex members: General and Direct Clearing Member RALs are set to “2”, Non-Clearing Member RALs are set to “0”.
  RALs for EEX members are set to “0”.
  RALs for all traders are initialized with “0”.
- Automatic Exercise (new RAL position code 246)

  RALs for all members are set to “3”.
  RALs for all traders are initialized with “0”.

The new RAL position codes are shown on the tab panes of the User Security Profile Maintenance window contained in both the @X-tract and @X-ceed GUIs.

## 3.4 Security Maintenance

Member security coordinators can set the RALs for their users in the User Security Profile Maintenance Window. These settings are verified using the User Security Status Report (RPTTT115). Only those changes made by the security coordinators appear in the User Security Maintenance Report (RPTTT110).

# 4 Interface Modification Details

## 4.1 Raw Data Interface

The raw data interface provides a specified set of reports in a structure that can be processed by in-house applications.

With the roll out of the Eurex 5.0 system enhancements, modified raw data files are provided for members. For a summary of new or modified reports and raw data file formats, please consult Appendix A.

Details about the modifications are shown in the following sections.

### 4.1.1 Raw Data File RAWCB010 - Position Detail

In the raw data file RAWCB010 the field “fees” is deleted. Four new fields are implemented: Suffix ID, Parent Suffix ID, Historical Indication (HIT), Adjustment/Reverse Indication (A/R) to indicate if an adjustment is either a reversal or an adjustment. Trades allowing further adjustments contain an “N” in this field.

The Position Detail report is enhanced to include OTC Vola Trades. The column “TRD TYP” shows the code “V” in case of an OTC Vola trade.

The new data structure for the file is as follows:

| Field | Format | Description |
|---|---|---|
| 01 RWCB010-WS-REC. | | |
| 05 RAW-KEY-GRP-RWCB010. | | |
| 10 RAW-ID-COD-RWCB010 | PIC X(8). | identification code of the raw data-stream |
| 10 RAW-DAT-GRP-RWCB010. | | |
| 15 RAW-EFF-DAT-RWCB010 | PIC 9(8). | business-day of which the raw data-stream is created |
| 15 RAW-CRT-PROC-DAT-RWCB010 | PIC 9(8). | creation-day of the raw data-stream |
| 10 ENV-NO-TXT-RWCB010. | | environment this raw data file belongs to |
| 15 ENV-NO-1-TXT-RWCB010 | PIC X(1). | |
| 15 ENV-NO-2-TXT-RWCB010 | PIC X(1). | |
| 10 MEMB-CLG-ID-COD-RWCB010 | PIC X(5). | identification code of the Clearing Member |
| 10 MEMB-EXC-ID-COD-RWCB010. | | |
| 15 MEMB-IST-ID-COD-RWCB010 | PIC X(3). | |
| 15 MEMB-BRN-ID-COD-RWCB010 | PIC X(2). | |
| 10 CURR-TYP-COD-RWCB010 | PIC X(3). | |
| 10 ACCT-TYP-COD-GRP-RWCB010. | | |
| 15 ACCT-TYP-COD-RWCB010 | PIC X(1). | |
| 15 ACCT-TYP-NO-RWCB010 | PIC X(1). | |
| 10 PROD-TYP-COD-GRP-RWCB010. | | |
| 15 PROD-LINE-COD-RWCB010 | PIC X(1). | |
| 15 PROD-TYP-COD-RWCB010 | PIC X(3). | |
| 10 SERI-GRP-ID-COD-RWCB010. | | |
| 15 SECU-ID-COD-RWCB010 | PIC X(4). | |
| 15 SERI-CLAS-COD-RWCB010 | PIC X(1). | |
| 15 SERI-EXP-DAT-RWCB010. | | |
| 20 EXPI-YR-DAT-RWCB010 | PIC 9(2). | |
| 20 EXPI-MTH-DAT-RWCB010 | PIC 9(2). | |

| Field | Format | Description |
|---|---|---|
| 15 EXER-PRC-RWCB010 | PIC 9(5). | |
| 15 SERI-VERS-NO-RWCB010 | PIC 9(1). | |
| 10 REPT-REC-TYP-COD-RWCB010 | PIC 9(1). | identifies the record-type |
| 10 TRAN-ID-NO-RWCB010 | PIC 9(6) | sequential number assigned by the exchange to uniquely identify a transaction |
| **10 CURRENT-SFX-ID-RWCB010** | **PIC 9(5).** | current suffix ID |
| 10 ORDR-NO-RWCB010 | PIC 9(9). | unique number to identify the order or zeroes for an OTC Block Trade |
| 05 REPT-DATA-GRP-RWCB010. | | |
| 10 REPT-REC-1-GRP-RWCB010 | | |
| 15 POST-LNG-TOT-BAL-RWCB010 | PIC ---------9. | |
| 15 POST-SHT-TOT-BAL-RWCB010 | PIC ---------9. | |
| 15 NET-POS-RWCB010 | PIC ---------9. | |
| 15 NET-POS-IND-RWCB010 | PIC X. | |
| 15 LST-STL-PRC-RWCB010 | PIC X(11). | |
| 15 CURR-STL-PRC-RWCB010 | PIC X(11). | |
| 15 TRAN-TYP-COD-RWCB010 | PIC X(3). | |
| 15 ORDR-BUY-COD-RWCB010 | PIC X(1). | |
| 15 OPEN-COD-RWCB010 | PIC X(1). | |
| 15 ORDR-CMB-TRD-TYP-COD-RWCB010 | PIC X(1). | |
| 15 TRAN-LNG-QTY-RWCB010 | PIC ---------9. | |
| 15 TRAN-SHT-QTY-RWCB010 | PIC ---------9. | |
| 15 TRAD-MATCH-PRC-RWCB010 | PIC X(11). | |
| 15 MEMB-EXC-USR-ID-COD-RWCB010. | | |
| 20 MEMB-USR-IST-ID-COD-RWCB010 | PIC X(3). | |
| 20 MEMB-USR-BRN-ID-COD-RWCB010 | PIC X(2). | |
| 15 PART-ID-COD-RWCB010. | | |
| 20 PART-SUB-GRP-ID-COD-RWCB010 | PIC X(3). | |
| 20 PART-SUB-NO-ID-COD-RWCB010 | PIC X(3). | |
| 15 CURR-LNG-TOT-BAL-RWCB010 | PIC ---------9. | |
| 15 CURR-SHT-TOT-BAL-RWCB010 | PIC ---------9. | |
| 15 MK-TO-MKT-TICKS-RWCB010 | PIC ------- 9.9(2). | |
| 15 PREM-VMAR-AMT-RWCB010 | PIC ---------- ----9.9(2). | |
| 15 FEES-BY-UNIT-RWCB010 | PIC ------- 9.9(2). | |
| 15 TRAN-FEE-AMT-RWCB010 | PIC ------- 9.9(2). | |
| 15 SECU-TRD-UNT-NO-RWCB010 | PIC 9(4).9(4). | |
| 15 TICK-SIZE-RWCB010 | PIC X(6). | |
| 15 VALUE-PER-TICK-RWCB010 | PIC 9(4).99. | |
| 15 TRADE-TYPE-FLAG-RWCB010 | PIC X(1). | |
| **15 PARENT-SFX-ID-RWCB010** | **PIC 9(5).** | parent suffix ID |
| **15 TRAN-ADJ-IND-COD-RWCB010** | **PIC X.** | Adjustment/Reverse Indication |
| **15 HIST-ADJ-IND-COD-RWCB010** | **PIC X.** | Historical Indication |
| | | |

### 4.1.2 Raw Data File RAWCB102 - Cash Settled Contracts

This report shows the contracts that are settled in cash on the delivery day. The report also contains details of profits and losses produced by these contracts.

The suffix ID for Trade Adjustments was amended and renamed.

The new data structure for the file is as follows:

| Field | Format | Description |
|---|---|---|
| 01 RWCB102-WS-REC. | | |
| 05 RAW-KEY-GRP-RWCB102. | | |
| 10 RAW-ID-COD-RWCB102 | PIC X(8). | |
| 10 RAW-DAT-GRP-RWCB102. | | |
| 15 RAW-EFF-DAT-RWCB102 | PIC 9(8). | |
| 15 RAW-CRT-PROC-DAT-RWCB102 | PIC 9(8). | |
| 10 ENV-NO-TXT-RWCB102. | | |
| 15 ENV-NO-1-TXT-RWCB102 | PIC X(1). | |
| 15 ENV-NO-2-TXT-RWCB102 | PIC X(1). | |
| 10 MEMB-CLG-ID-COD-RWCB102 | PIC X(5). | |
| 10 MEMB-EXC-ID-COD-RWCB102. | | |
| 15 MEMB-IST-ID-COD-RWCB102 | PIC X(3). | |
| 15 MEMB-BRN-ID-COD-RWCB102 | PIC X(2). | |
| 10 CURR-TYP-COD-RWCB102 | PIC X(3). | |
| 10 PROD-TYP-COD-GRP-RWCB102. | | |
| 15 PROD-LINE-COD-RWCB102 | PIC X(1). | |
| 15 PROD-TYP-COD-RWCB102 | PIC X(3). | |
| 10 ACCT-TYP-COD-GRP-RWCB102. | | |
| 15 ACCT-TYP-COD-RWCB102 | PIC X(1). | |
| 15 ACCT-TYP-NO-RWCB102 | PIC X(1). | |
| 10 SERI-GRP-ID-COD-RWCB102. | | |
| 15 SECU-ID-COD-RWCB102 | PIC X(4). | |
| 15 SERI-CLAS-COD-RWCB102 | PIC X(1). | |
| 15 SERI-EXP-DAT-RWCB102. | | |
| 20 EXPI-YR-DAT-RWCB102 | PIC 9(2). | |
| 20 EXPI-MTH-DAT-RWCB102 | PIC 9(2). | |
| 15 EXER-PRC-RWCB102 | PIC 9(5). | |
| 15 SERI-VERS-NO-RWCB102 | PIC 9(1). | |
| 10 REPT-REC-TYP-COD-RWCB102 | PIC 9(1). | field indicates the record-type |
| 10 TRAN-ID-NO-RWCB102 | PIC 9(6). | sequential number assigned by the exchange to uniquely identify a transaction |
| **10 CURRENT-SFX-ID-RWCB102** | **PIC 9(5).** | Current suffix ID |
| 10 ORDR-NO-RWCB102 | PIC 9(9). | unique number to identify the order |
| 10 LNG-SHT-IND-RWCB102 | PIC X(1). | |
| 05 RAW-DATA-GRP-RWCB102. | | |
| 10 NET-POS-RWCB102 | PIC ---------9. | |
| 10 NET-POS-IND-RWCB102 | PIC X. | |
| 10 LST-STL-PRC-RWCB102 | PIC X(11). | |
| 10 CURR-STL-PRC-RWCB102 | PIC X(11). | |
| 10 TRAN-TYP-COD-RWCB102 | PIC X(3). | |
| 10 ORDR-BUY-COD-RWCB102 | PIC X(1). | |
| 10 OPEN-COD-RWCB102 | PIC X(1). | |
| 10 TRAN-LNG-QTY-RWCB102 | PIC ---------9. | |
| 10 TRAN-SHT-QTY-RWCB102 | PIC ---------9. | |
| 10 TRAD-MATCH-PRC-RWCB102 | PIC X(11). | |
| 10 MEMB-EXC-USR-ID-COD-RWCB102. | | |
| 15 MEMB-USR-IST-ID-COD-RWCB102 | PIC X(3). | |
| 15 MEMB-USR-BRN-ID-COD-RWCB102 | PIC X(2). | |
| 10 TICK-SIZE-RWCB102 | PIC X(11). | |
| 10 MK-TO-MKT-TICKS-RWCB102 | PIC ------- 9.9(2). | |
| 10 VALUE-PER-TICK-RWCB102 | PIC ------- 9.9(2). | |
| 10 FIN-SETT-AMT-RWCB102 | PIC ---------- ----9.9(2). | |
| | | |

### 4.1.3 Raw Data File RAWCC042 - Liquidating Values for EEX Products

For the purpose of a cross margin calculation, a position splitting is performed. The report is modified to distinguish between contracts where there are crossed (overlapping) positions, and contracts with non-crossed positions.

The new data structure for the file is as follows:

| Field | Format | Description |
|---|---|---|
| 01 RWCC042-WS-REC. | | |
| 05 RAW-KEY-GRP-RWCC042. | | |
| 10 RAW-ID-COD-RWCC042 | PIC X(8). | identification code of the raw data-stream |
| 10 RAW-DAT-GRP-RWCC042. | | |
| 15 RAW-EFF-DAT-RWCC042 | PIC 9(8). | business day of which the raw data-stream is created. |
| 15 RAW-CRT-PROC-DAT-RWCC042 | PIC 9(8). | creation-day of the raw data-stream |
| 10 ENV-NO-TXT-RWCC042. | | environment this raw-data file belongs to |
| 15 ENV-NO-TXT-1-RWCC042 | PIC X(1). | |
| 15 ENV-NO-TXT-2-RWCC042 | PIC X(1). | |
| 10 MBR-CLG-ID-COD-RWCC042 | PIC X(5) | identification code of the Clearing Member |
| 10 MBR-EXC-ID-COD-RWCC042. | | identification code of the Exchange Member |
| 15 MBR-IST-ID-COD-RWCC042 | PIC X(3). | |
| 15 MBR-BRN-ID-COD-RWCC042 | PIC X(2). | |
| 10 ACCT-TYP-COD-GRP-RWCC042. | | Account group field. |
| 15 ACCT-TYP-COD-RWCC042 | PIC X(1). | |
| 15 ACCT-TYP-NO-RWCC042 | PIC X(1). | |
| 10 MGN-GRP-COD-RWCC042 | PIC X(5). | margin-group which consists of two or more margin-classes |
| 10 MGN-CLS-COD-RWCC042 | PIC X(5). | alphanumeric code which represents the margin-class |
| 10 CURR-TYP-COD-RWCC042 | PIC X(3). | identification code of the currency |
| 10 UD-IND-RWCC042 | PIC X(1). | indicator showing whether the projected underlying price is less than (downside) or greater than (upside) the closing price of the underlying. |
| 10 SERI-GRP-ID-COD-RWCC042 | | |
| 15 SECU-ID-COD-RWCC042 | PIC X(4). | unique identification code that Eurex has assigned to the product |
| 15 SERI-CLAS-COD-RWCC042 | PIC X(1). | class of an options series |
| 15 SERI-EXP-DAT-RWCC042. | | contains the year and month when an options series expires or a futures contract is settled |
| 20 EXPI-YR-DAT-RWCC042 | PIC 9(2). | |
| 20 EXPI-MTH-DAT-RWCC042 | PIC 9(2). | |
| 15 EXER-PRC-RWCC042 | PIC 9(5). | price at which an options series can be exercised. This field will be formatted with zeros for futures contracts. |
| 15 SERI-VERS-NO-RWCC042 | PIC 9(1). | contains the version number assigned to each options series at creation. A non-zero value in this field indicates that the series has been changed as a result of a capital adjustment. |
| 05 REPT-DATA-GRP-RWCC042. | | |
| 10 REPT-REC-1-GRP-RWCC042. | | |
| 15 SECU-LST-CLS-PRC-RWCC042 | PIC X(11). | contains the closing price of the underlying instrument |

| Field | Format | Description |
|---|---|---|
| 15 MAX-MIN-UNDER-VAL-RWCC042 | PIC X(11). | contains the lowest or highest price of the underlying |
| 10 REPT-REC-2-GRP-RWCC042. | | |
| 15 NET-LNG-SHT-POS-RWCC042 | PIC -----9. | |
| 15 LNG-SHT-IND-RWCC042 | PIC X(1). | net indicator, field is filled only for series records |
| 15 TRD-UNT-VAL-RWCC042 | PIC 9(9).9(4). | contract size |
| 15 SERI-CURR-VALUE-RWCC042 | PIC ----------9.9(2). | current value of the underlying or the liquidating values of the net position per series or per contract at the liquidation of the position |
| 15 MAX-MIN-SERI-VAL-RWCC042 | PIC ----------9.9(2). | contains either the lowest or highest value of the underlying or the liquidating values of the net position per series or per contract at the liquidation of the position |
| 10 REPT-REC-1-VALUE-RWCC042. | | |
| 15 RISK-VALUE-RWCC042 | PIC X(11). | risk value per series or contract |
| 10 REPT-REC-2-VALUE-RWCC042. | | |
| 15 THEO-VALUE-RWCC042 | PIC ----------9.9(2). | theoretical value per series or contract |
| **15 CROSSED-POS-COD-RWCC042** | **PIC X(1)** | Crossed position code, “N” for normal positions, “Y” for EEX margining |
| 15 COMP-SHT-RWCC042 | PIC -----9. | states the Short Option Compensation Potential for each expiry |
| 15 USED-FOR-COMP-RWCC042 | PIC -----9. | describes the out-of-the-money short positions covered by existing long positions with the same or longer time to expiration and corresponding strike values |
| 15 NET-FUT-POS-RWCC042 | PIC -----9. | Number of net futures positions per account within a margin class with days to maturity > 1 |
| 15 OPT-EQU-TRD-UNT-VAL-RWCC042 | PIC 9(5).9(4). | Options equivalent trading unit value of the future |
| 15 MINMAX-THEO-VAL-RWCC042 | PIC ----------9.9(6). | Theoretical Value of compensated part of not fully compensated short position for Minimum/Maximum Liquidating Value |
| 15 RISK-THEO-VAL-RWCC042 | PIC ----------9.9(6). | Theoretical Value of compensated part of not fully compensated short position for Risk Liquidating Value |

## 4.2 File Interface Layout Change – File FPTHEA

The file FPTHEA contains derivative theoretical prices used for margining. Due to the theoretical price enhancements for Eurex options described in the Functional Release Notes the file FPTHEA layout is extended by a new entry :

```
10  FORWARD-UND-PRICE-RMICTHEA          PIC  Z(4)9.9(6)
```

that is located after the CALC-UND-PRICE-RMICTHEA entry.

This entry contains the Forward Underlying price in the same format as the RPTCC030 report.

Further information is found in the updated “Member Interface – File Interface Layouts” document.

Listed below is the record layout of the temporary file. The corresponding field level descriptions follow the record layout.

```
01  RMICTHEA-WS-REC.
      10  MGN-CLS-COD-RMICTHEA              PIC  X(5).
      10  SERI-GRP-ID-COD-RMICTHEA.
        15  SECU-ID-COD-RMICTHEA            PIC  X(4).
        15  SERI-CLAS-COD-RMICTHEA          PIC  X(1).
        15  SERI-EXP-DAT-RMICTHEA.
          20  EXPI-YR-DAT-RMICTHEA          PIC  9(2).
          20  EXPI-MTH-DAT-RMICTHEA         PIC  9(2).
        15  EXER-PRC-RMICTHEA               PIC  9(5).
        15  SERI-VERS-NO-RMICTHEA           PIC  9(1).
      10  CALC-BUC-PRICE-RMICTHEA           PIC  X(9).
      10  CALC-UND-PRICE-RMICTHEA           PIC  X(9).
      10  FORWARD-UND-PRICE-RMICTHEA        PIC  Z(4)9.9(6).
      10  UD-IND-RMICTHEA                   PIC  X(1).
      10  STOCK-PRC-IND-RMICTHEA            PIC  X(1).
      10  THEO-VALUE-RMICTHEA               PIC  Z(4)9.9(6).
      10  EA-THEO-VALUE-RMICTHEA            PIC  X(9).
      10  SHORT-OPT-THEO-RMICTHEA           PIC  Z(4)9.9(6).
      10  SECU-LST-CLS-PRC-RMICTHEA         PIC  X(10).
      10  INTP-LST-CLS-PRC-RMICTHEA         PIC  X(10).
      10  SERI-LST-STL-PRC-RMICTHEA         PIC  X(10).
      10  MGN-INTERVAL-RMICTHEA             PIC  X(11).
      10  IMPLIED-VOL-RMICTHEA              PIC  Z(2)9.9(2).
      10  INTR-RAT-PCT-RMICTHEA             PIC  9(1).9(4).
      10  YIELD-RAT-PCT-RMICTHEA            PIC  9(1).9(4).
      10  SECU-TRD-UNT-NO-RMICTHEA          PIC  Z(3)9.9(4).
      10  SECU-TIC-SIZE-RMICTHEA            PIC  X(7).
      10  SECU-TIC-VAL-RMICTHEA             PIC  Z(3)9.9(2).
      10  SERI-STS-COD-RMICTHEA             PIC  X(1).
      10  MGN-STYLE-FLG-RMICTHEA            PIC  X(1).
      10  EXER-PRC-DECIMALS-RMICTHEA        PIC  9(1).
      10  CURR-DCML-SHFT-GRP-RMICTHEA.
        15  CURR-TYP-COD-RMICTHEA           PIC  X(3).
        15  DCML-SHFT-NO-RMICTHEA           PIC  9(1).
      10  DAYS-TO-EXP-RMICTHEA              PIC  Z(2)9.
      10  SECU-DIV-IDX-RMICTHEA             PIC  X(1).
      10  SECU-DIV-INFO-RMICTHEA.
        15  SECU-DAYS-TO-DIV-RMICTHEA       PIC  Z(2)9.
        15  SECU-FUT-DIV-AMT-RMICTHEA       PIC  Z9.9(2).
01  RMICTHEA-FILE-INFO-REC REDEFINES RMICTHEA-WS-REC.      (last record)
    05  FILE-END-MARK-RMICTHEA              PIC  X(5).
    05  FILLER                              PIC  X.
    05  FILE-COUNTER-RMICTHEA               PIC  9(8).
    05  FILLER                              PIC  X.
```

```
05  CURR-BUS-DAY-RMICTHEA              PIC  9(8).
05  FILLER                             PIC  X.
05  DESCRIPTION-RMICTHEA               PIC  X(92).
05  FILLER                             PIC  X(70).
```

| Field | Description |
|---|---|
| FORWARD-UND-PRICE-RMICTHEA | NEW: This entry contains the forward underlying price. |

## 4.3 Financial Data Disseminator (FDD)

The Eurex Financial Data Disseminator (FDD) Service provides an electronic interface for customer computers to receive real-time data about the financial instruments traded on the exchange.

Technical details of the FDD changes are described in the following documents:

X0001200 EUREX Financial Data Disseminator - Real Time Datafeed

X0004300 EUREX FDD File Service

Preliminary versions of these documents were published in June 2001.

Final versions of the documents are not be published to members, since FDD is now a part of the CEF (Consolidated Exchange Feed) project. The CEF announcements contain information about the new CEF/FDD functionality. Additionally, each FDD user was personally contacted and informed about the implemented changes.

The FDD changes which have member impact are summarized below.

### 4.3.1 X.25 Protocol Replacement

Currently the Financial Data Disseminators (FDDs) use the X.25 communication protocol for the data transmission.

The FDD interface no longer supports the X.25 protocol with the introduction of Eurex 5.0. The FDD information is now carried over the TCP/IP protocol.

### 4.3.2 Service Request Layout Changes

The layout of the service requests is changed. Instead of the 4-digit Customer ID, an 8-digit username has to be provided by the FDD user.

### 4.3.3 Changes in FDD Message Format

#### 4.3.3.1 FDD Message Exchange Parameter

The exchange specified in the FDD message is now the exchange of the product (e.g. XHEX, XEEX) instead of the default exchange (XEUR).

This applies for products of the cooperation exchanges HEX (Helsinki Exchange) and EEX (European Energy Exchange).

#### 4.3.3.2 File and Info Service Messages

For the different file and info service requests, a specific message type is introduced. Additionally, the records sent during file and info service request processing contain a message type section. This section specifies the type of service required and the length of the record including the message type section length.

# 5 Eurex Software Introduction in Production

The software introduction of Eurex Release 5.0 is described in the following section. All times are Central European Time (CET).

## 5.1 Wednesday, November 28th, 2001

Eurex sends the Eurex Release 5.0 and Gate 3.0 production software to the members. The software is sent to each MISS connected to the back end. For Sun-based MISSs, members will also receive the Windows NT version of the software in addition to the Sun Solaris software version. Members should ensure that their architecture is connected and running.

If no software is received by Friday, November 30th, 2001 the Technical Help Desk should be contacted.

Please check the file transfer for completeness.

The following table shows the disk space required for the installation kits:

| Platform | Disk Space Required |
|---|---|
| Sun Solaris (MISS) | 100 MB + 50 MB (NT) |
| Intel Windows NT (MISS) | 50 MB |

## 5.2 Friday, November 30th, 2001

Batch Processing

The Eurex batch is executed with Software Release Eurex 4.1. Therefore, no specific actions need to be taken by the Eurex member. BOF messages, PTCs and reports are sent as usual. Eurex deletes all outstanding BOF messages and PTCs after this batch run at approximately 23:00 CET.

If the BOF messages and PTCs are required, qualified personnel should be available to receive them. BOF messages and PTCs that are not received cannot be resent.

Historical report availability

After Eurex introduces Eurex 5.0, no historical reports prior to the business day Friday, November 30th, 2001 can be retrieved. Some historical reports may be empty. It should be checked whether the selected reports are received before Friday, November 30th, 2001. After batch processing on Friday, November 30th, 2001, it is not possible to recreate historical reports created by Eurex 4.1.

Installation

After receiving all BOF messages, PTCs and reports, the installation of Eurex 5.0 can be started at any time.

## 5.3 Saturday, December 1st , 2001

Connection Test

The connection test applies to all members.

The Eurex architecture is available from 15:00 to 18:00 CET. It is necessary to verify that all systems are upgraded. The upgrade is mandatory to trade at Eurex on Monday, December 3rd, 2001 after introduction of Eurex 5.0 software.

To verify the set-up, it is recommended that all systems, including back-up devices, are connected to the Eurex architecture. A logon with an arbitrary trader account is recommended. To check the set-up of broadcast subscriptions, the exchange sends public broadcasts via the Market Supervision Messages window.

Note: Third party VALUES applications may use backward compatibility of the VALUES API, yet it is mandatory to install the Eurex 5.0 software. However, applications using trade adjustment functions are functionally not backwardly compatible due to the changes described in chapter 2.2.

## 5.4 Monday, December 3rd, 2001

Eurex Rel. 5.0 first trading day

Access to Eurex is only possible with the new Release 5.0 software after this date.

# 6 Appendix A - Modifications to Reports and Raw Data File Formats

In Eurex 5.0, the file name of a number of reports and raw data files are modified or created. The following reports and raw data files are affected:

| REPORT NAME | CODE | RAW DATA |
|---|---|---|
| Member Position Transfer | RPTCA030 | n.a. |
| Position Detail | RPTCB010 | RAWCB010 |
| Position Transfer Overview | RPTCB030 | n.a. |
| Transaction Mix Report | RPTCB068 | n.a. |
| Cash Settled Contracts | RPTCB102 | RAWCB102 |
| Account Transfer Exception | RPTCB110 | n.a. |
| Position Transfer For Expiring EEX Contracts | RPTCB115 | n.a. |
| Give-up Trade History | RPTCB130 | n.a. |
| Accepted Give-up Trades | RPTCB140 | n.a. |
| Take-up trade History | RPTCB150 | n.a. |
| Accepted Take-up Trades | RPTCB160 | n.a. |
| Theoretical Values | RPTCC030 | n.a. |
| Liquidating Values for EEX Products | RPTCC042 | RAWCC042 |
| Additional Margin for EEX Products | RTPCC047 | n.a. |
| In-The-Money Advisory | RPTCE010 | n.a. |
| Member Expiration | RPTCE030 | n.a. |
| Daily Order Maintenance | RPTTC540 | n.a. |
| Daily Block Trade Maintenance | RPTTC545 | n.a. |
| Daily Trade Confirmation | RPTTC810 | n.a. |
| Time and Sales Sheet | RPTTD910 | n.a. |

The raw data file format modifications are shown in chapter 4.1 of this document.

Note: Remember that the new reports have to be selected in the *Report Selection* window of the @X-tract Clearing GUI before they can be used.

## 6.1 Report Paths and Filenames

The path names on the MISS platform are as follows:

- **Windows/NT :** C:\InetPub\ftproot\reports00
- **Sun Solaris :** /opt/gate/transferdir/reports00

The file name structure is as follows:

<MEMBER>/<REPORT_CUR&EFF_DATE>/<REPORT_NAME>.<EXTENSION><SUFFIX>

where:

| | |
|---|---|
| <MEMBER> | Is a directory name consisting of member institution (3 chars) and branch (2 chars) |
| <REPORT_CUR&EFF_DATE> | Is a directory name consisting of the current and effective dates without the century (YYMMDDYYMMDD) |
| <REPORT_NAME><br>or<br><RAWDATA_NAME> | Is the file name of one of the reports or files referenced above containing RPT (or RAW) and the report or file ID (5 chars). If the report or file is split by product, the file name also contains the product type (4 chars) and security ID (3 or 4 chars).<br>If present, this is followed by the clearing member institution (3 chars) and branch (2 chars).<br>If the file is not split by product, the clearing member ID follows the report name. |
| <EXTENSION> | The report file extension depends on the type and processing state:<br>• During copy process: <REPORT_NAME>.ILIS<SUFFIX><br>• After successful copy: <REPORT_NAME>.CLIS<SUFFIX><br>• After decompression: <REPORT_NAME>.LIS<SUFFIX> |
| <SUFFIX> | The report file extension suffix could be:<br>• Empty (No file extension suffix needed)<br>• Product type (4 chars) and Product ID (3 or 4 chars), e.g. “OSTKALV”<br>• Clearer ID (member ID of a clearing member, 5 chars), e.g. “ABCFR” |

# 7 Appendix B – Eurex Technical Documentation

The simulation versions of the updated technical documentation are available in September 2001. Final production versions follow in November 2001.

| **Updated Eurex Technical Documentation** | |
|---|---|
| **Document ID** | **Name of the Document** |
| X0005700 | Eurex Front End Installation Guide |
| X0005900 | Eurex Front End Operations Guide |
| X0006600 | Common MISS-Based Front End Technical Overview |
| X0006800 | Eurex Member Interface – File Interface Layouts |
| X0007100 | @Eurex User Reference Manual |
| XC006100 | Deutsche Börse Front End Sizing Guidelines |

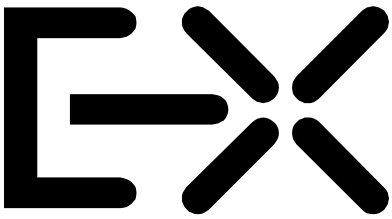
Note the following changes since the Eurex 5.0 Preliminary Release Notes were issued:

- The Eurex Financial Data Disseminator documentation is not available as external documentation any longer, therefore Eurex terminates the publication of the Eurex Financial Data Disseminator (X0001200) and Financial Data Disseminator Interface Specifications (X0004300) documents.
- The EurexPTC User Documentation (X0007000) is not available as a separate document any longer, since the software installation of EurexPTC is now included in the Eurex 5.0 standard software kit. The installation of EurexPTC is now included in the Eurex Front End Installation Guide (X0005700), the EurexPTC ini-file setup is now included in the Eurex Front End Operations Guide (X0005900) and the use of EurexPTC is now described in the Trading and Clearing User Guides (X0006100 and X0006900).
- All relevant @Eurex documentation is now summarized in the “@Eurex User Reference Manual”, (X0007100) which now contains all information needed to install, operate and use the new @Eurex connection alternative.

The following technical documents can be found on the Eurex web-site (www.eurexchange.com) under “Market Place / Programming to Eurex“. Updated Eurex 5.0 programming versions of the VALUES developer documentation have been available there.

| VALUES API developer documentation (MISS) |
| --- |
| Member Front End Development Guide - Overview |
| Member Front End Development Guide - Volume 1 - Call Interface |
| Member Front End Development Guide - Volume 2 - Eurex Application Requests, Responses and Subscriptions |

*X-pand into the* **Future**



# Eurex 5.0

## Functional Release Notes

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# 1 General Information

This document contains the Functional Release Notes for Eurex 5.0.

The functional focus of Eurex 5.0 is the introduction or enhancement of the following features:

- New OTC volatility trade entry
- New set of formulas in the Eurex OTC - Basis Trade Facility (BTF)
- Theoretical price enhancements for Eurex options
- Introduction of cascading expiration for EEX products.
- Completion of clearing GUI (including security windows)
- New CSD selection per security
- Changed automatic exercise of in-the-money options
- An increased number of trade adjustments

Eurex/EEX is providing extended graphical user interfaces (GUIs) for trading and clearing. The updated Java-based trading and clearing front end (@X-ceed and @X-tract) GUIs will include the functionality of the current FMS screens. Therefore, the separate MISS-based FMS application is obsolete.

For further details about the enhanced trading and clearing GUI functionality please refer to the updated Eurex trading and clearing user guides for the enhanced GUI versions, published in a simulation version in September 2001.

A list of new and updated documentation is attached in Appendix B. A simulation version of the documentation is provided in September 2001, the final production versions are available in November 2001.

In this document, the term ‘Eurex 5.0’ refers to the electronic system that serves both Eurex *and* EEX.

Due to the severe member impact, all scheduled technical changes[1] are summarized here:

## 1.1 UD/MISS Migration

With the introduction of Eurex 5.0, the switch from user devices to MISS technology is completed. Members who still use user devices exclusively, and who have not yet informed Eurex of their migration plans, are urged to contact Eurex Customer Services as soon as possible.

Furthermore, Eurex reminds its members that withdrawal of support for user devices also means that the MEMPI (BOF, PMI and TRAD) and ORPI programmable interfaces are no longer available. Applications which are still based exclusively on these interfaces must be converted to the VALUES API before the introduction of Eurex 5.0.

[1] As announced in Circular 014/2001

Eurex recommends all members to complete their migration to the MISS architecture by September 1, 2001, in order to separate the migration exercise from the release change, and to take full advantage of the release simulation period.

## 1.2 Withdrawal of Support for IBM AIX Front Ends

As announced in Circular 019/00, with the introduction of the new release, Eurex will also withdraw support for front ends based on the IBM AIX platform, including MISS-based front ends. Eurex also requests members with IBM AIX systems to inform Customer Services of their migration plans. Further information on this subject can be found in the Technical Release Notes.

## 1.3 Upgrade of SUN Solaris Operating System

With the introduction of Eurex 5.0, Eurex is plans to upgrade the operating system software for SUN Solaris front ends. With the new release, the installation of SUN Solaris 8 is mandatory for all SUN MISSs and workstations. To provide members with an opportunity to perform an early upgrade, starting in June 2001 the current Eurex Release 4.1 is supported on Solaris 8 as well as on Solaris 2.6. Further information on this subject is in the Technical Release Notes and in Circular 034/01.

## 1.4 Withdrawal of Support for UDP-Broadcast

The new release Eurex 5.0 is based on a new version of the GATE communications software (GATE Release 3.0). This version of the software only supports IP-multicast. Support for UDP-Broadcast will be withdrawn, and the Broadcast Bridge software will consequently become obsolete. February 2001 members had the opportunity to attend a workshop on the use of IP-Multicast in relation to GATE 3.0. The slides of the presentation delivered at that workshop are available on the web-site “www.eurexchange.com ” in the area “Info for Members -> Special -> a/c/e 2.0”. Further information on this subject is found in the Technical Release Notes.

## 1.5 Replacement of the Eurex Trading Application X-ceed by @X-ceed

The Galaxy-based trading application X-ceed is replaced by the Java-based application @X-ceed available since the end of February, 2001. As previously announced, the Galaxy-based X-ceed is no longer provided with Eurex 5.0. Further information on this subject is in the Technical Release Notes.

# 2 Functional Changes for Eurex 5.0

## 2.1 New OTC Volatility Trade Facility

The new OTC vola trade entry window enables members to enter combined futures and options trades that are negotiated outside the system, directly with another trader or member. These trades are posted to the exchange clearing and settlement system to settle the trades.

Functionally, this can be considered as the simultaneous buy of a call option or sell of a put option and sell or buy of the respective future, even though these events do not occur at the same time. The delta of the options trade is used to calculate the number of futures that can be exchanged.

Either the buyer or the seller of the vola trade can add the vola trade. This transaction has to contain a valid trade ID and product ID of an existing option trade. Please note that in case the option trade is an ordinary option trade, i.e. no OTC block trade, the trade has to result from a full match. This trade can be either an on-exchange or OTC block trade.

The future contract entered must have the same underlying as the option contract for index options. The future contract used must be the underlying of the option contract for interest rate options. The future price used must be between the daily high and low of the future and the quantity must be greater than the minimum defined by the exchange. The total used quantity of the options trade must not exceed the quantity of the original options trade (i.e. the maximum option quantity), and is stored in case this option trade is used for another vola trade. After successful entry, a transaction number is generated by the system. The trade can be deleted only by the party that entered the trade, assuming the vola trade is not yet approved.

To complete the OTC vola trade, the counterparty of the options trade must approve the trade using the transaction number received from the member that entered the vola trade. Requests that are not approved are deleted after the end of trading, during batch processing, on the day of entry.

The new trade type “V” is introduced to distinguish vola trades from the existing OTC trades on windows and reports. (“B” = basis trades, “O” = block trades, “E” = EFP trades, “ ” = Exchange trades, “V” = vola trades and “*” for all trade types). Note that the trade type “*” (wildcard) may only be used in the GUI, not with VALUES requests.

### 2.1.1 Report Modifications to Separate OTC and Exchange Trades

Two trading reports, RPTTC540 “Daily Order Maintenance” and RPTTC545 “Daily Block Trade Maintenance” are separated, so that all OTC Trades are shown in the RPTTC545 report, and all other trades are shown in RPTTC540.

## 2.2 Extension of the Basis Trade Facility

With Eurex 5.0, the Basis Trade Facility (BTF), which was limited to German government bonds with annual coupon payment, is extended for Euro denominated foreign government bonds with other coupon payment frequency.

For Eurex to include bonds with more than one coupon payment per year in the basis trade facility, the coupon frequency needs to be configurable so that the following are generated correctly:

- Cash flow
- Hedge ratio
- Modified duration
- Macauly duration
- Yield to maturity.

### 2.2.1 Hedge Ratio Calculation

The formula to calculate the hedge ratio is defined as:

$$HedgeRatio = \frac{FaceAmount_{CB}}{NotionalSize_{Fut}} * \frac{DirtyPrice_{CB}}{DirtyPrice_{CTD}} * \frac{ModD_{CB}}{ModD_{CTD}} * PF_{CTD}$$

where

$FaceAmount_{CB}$ = *Nominal value of the cash bond (CB)*

$NotionalSize_{Fut}$ = *Contract value of future (Fut); fixed value*

$DirtyPrice_{CB}$ = *$CashPrice_{CB}$+$AccruedInterest_{CB}$; calculated by dirtyprice (percentage) formula (see below)*

$DirtyPrice_{CTD}$ = *$CashPrice_{CTD}$ + $AccruedInterest_{CTD}$; both for cheapest to deliver (CTD), calculated by dirty price (percentage) formula (see below)*

$ModD_{CB}$ = *Modified duration cash bond (CB); calculated by the modified duration formula (see below)*

$ModD_{CTD}$ = *Modified duration cheapest to deliver (CTD); calculated by the modified duration formula (see below)*

$PF_{CTD}$ = *Price factor CTD; fixed value*

Note that while this formula is the same as the current one, the modified durations (see below) can be calculated using a specifiable coupon frequency.

The coupon frequency (k) is needed to calculate both the correct cash flow and the yield of the respective bond and, therefore, the exact modified and the Macauly duration formulas (see below). Currently, the coupon frequency in the Eurex system is 1 (i.e. an annual coupon payment).

### 2.2.2 Dirty Price Calculation

The dirty price is calculated as follows:

*DirtyPrice = CashPrice + AccruedInterest*

$$AccruedInterest = \left( \left( \frac{CouponRate}{k} \right) * \frac{(SettlementDate - LastPayoutDate)}{DaysCurrentCouponPeriod} \right)$$

where

*CashPrice* = *Price of the cash bond*

*CouponRate* = *Rate of the coupon by year; constant value (i.e.: 7% = 7,00)*

*SettlementDate* = *Settlement date*

*LastPayoutDate* = *Last coupon date or first settlement date; constant value*

*DaysCurrentCouponPeriod* = *Number of days in the current coupon period*

*k* = *Number of coupons per year (coupon frequency)*

If the settlement date of the basis trade is greater than or equal to the next payout date, then add one year to the next and the last payout date of the respective bond. This has to be checked for the cash bond and the CTD before calculating.

### 2.2.3 Calculation of Modified Duration

The modified duration is calculated as follows:

$$ModifiedDuration = \frac{MacaulyDuration}{\left(1 + \frac{y}{k}\right)}$$

where

*y* = *yield to maturity; calculated by Yield to Maturity formula (see below)*

*k* = *number of coupons per year (coupon frequency)*

### 2.2.4 Calculation of Macauly Duration

The Macauly duration is calculated as follows:

$$MacaulyDuration = \frac{\sum_{t=1}^{M} T_{t/k} * \frac{CF_t}{(1+y)^{T_{t/k}}}}{\sum_{t=1}^{M} \frac{CF_t}{(1+y)^{T_{t/k}}}}$$

where

*t* = *Period when cash flow received; t=1,2,3, … ,M*

$CF_t$ = *value of cash flow at time t; calculated by the Cash Flow formula (see below)*

$T_{t/k}$ = *time in years to next cash flow t; this is the fraction between the settlement day and the day when the cash flow is received*

*k* = *number of coupon payments per year*

*M* = *total numbers of cash flows; defined as: rounded (always to the next higher full value) value (number of years between settlement and maturity day) * k (number of coupons per year)*

### 2.2.5 Yield to Maturity

The Yield to Maturity is defined as the solution y of the following equation:

$$DirtyPrice - \sum_{t=1}^{M} \frac{CF_t}{(1+y)^{T_{t/k}}} = 0$$

where

*M* = *total numbers of cash flows; defined as: rounded (always to the next higher full value) value (number of years between settlement and maturity day) * k (number of coupons per year)*

### 2.2.6 Cash Flow

The Cash Flow CF is defined as:

$$CF = \frac{CouponRate}{k} * \frac{(NextPayoutDate - LastPayoutDate)}{DaysCurrentCouponPeriod}$$

where

*NextPayoutDate* = *Next coupon date after settlement date*

*k* = *number of coupon payments per year*

For the maturity period (last coupon period) the cash flow (CF) is defined as:

$$CF = \frac{CouponRate}{k} + 100$$

## 2.3 Theoretical Price Enhancements for Eurex Options

Previously, there was only one model on the Eurex system for option pricing: Cox-Ross-Rubinstein. This model does not reflect specifics of certain products, especially index options and money-market derivatives. Thus the following changes are implemented:

There are several Eurex option types currently available. For some of them, the Cox-Ross-Rubinstein model is not suitable. Therefore, the Black-Scholes model and the Black 76 model will be introduced.

A detailed description of which option types are calculated with the new option pricing models will be published in a later circular.

With the introduction of Eurex 5.0 the theoretical price calculation for index options uses the future on the index like an underlying, instead of the index itself, for the calculation of theoretical prices. Correspondingly, the implied volatility calculation refers to the future of the index instead of the index.

As there are no options on EEX products, only Eurex option products are affected by these changes.

It is assumed that the reader is familiar with the Cox-Ross-Rubinstein model, therefore only the new models are shown here.

### 2.3.1 Black-Scholes Model

This model was developed for European-style options on underlyings that do not pay dividends.

The following equations define the model:

$$c = S_0 N(d_1) - Xe^{-rT} N(d_1 - \sigma\sqrt{T})$$

$$p = Xe^{-rT} N(\sigma\sqrt{T} - d_1) - S_0 N(-d_1)$$

$$d_1 = \frac{\ln(\frac{S_0}{X}) + (r + \frac{\sigma^2}{2})T}{\sigma\sqrt{T}}$$

where

c theoretical price of the European style call option that does not pay dividends

p theoretical price of the European style put option that does not pay dividends

N(x) cumulative probability distribution function for a variable that is normally distributed i.e.

$$N(x) = \int_{-\infty}^{x} \frac{e^{\frac{-y^2}{2}}}{2\pi} dy$$

$S_0$ actual underlying price, less the present value of the expected dividends

X option strike price

e Euler's constant

r continuously compounded, risk free interest rate

σ volatility of the underlying price

T time to maturity of the option

### 2.3.2 Black 76 Model

This model is optimal for the evaluation of European style options on futures contracts. Using the notation from the previous section, and defining $S_0$ as the price of the futures contract, the formula is defined as follows:

$$c = S_0 e^{-rT} N(d_1) - X e^{-rT} N(d_1 - \sigma\sqrt{T})$$

$$p = X e^{-rT} N(\sigma\sqrt{T} - d_1) - S_0 e^{-rT} N(-d_1)$$

$$d_1 = \frac{\ln(\frac{S_0}{X}) + \frac{\sigma^2}{2} T}{\sigma\sqrt{T}}$$

## 2.4 Introduction of Cascading Expiration for EEX Futures

The European Energy Exchange (EEX) derivatives market, launched in March 2001, offers futures on electricity. For electricity futures it is essential to know how much energy should be delivered in each time period. For EEX futures, a delivery calendar defines the days when electricity is to be delivered. It is fixed together with the number of delivery time units per day and the amount of electricity to be delivered per time unit. In the current situation, futures are supported that cover the delivery of electricity for an entire month.

Having a position in a futures contract for one year is equivalent to having a position in each of the futures contracts that cover those months. To make use of this relation, it is desirable to settle the big contracts for one year by creating positions in the smaller monthly contracts. Only the monthly contracts are settled individually, which leads to the introduction of a settlement cascade.

These cascades allow grouping of products with the same parameters, but different delivery periods, in a way that only the product with the shortest period is settled.

Each existing EEX product is assigned to a product cascade. If there is not more than one product in the cascade, and this product is the finally settled base product (monthly settled product), the settlement is the same as in the non-cascaded case.

As currently implemented in the Eurex system, all EEX future orders are processed by the futures price-time matcher.

For further details on cascading EEX futures, please consult the updated “@X-tract Clearing User Guide”, which is available in a simulation version in September 2001.

### 2.4.1 Naming of the Cascading EEX Futures Products

The product name in the system is a mnemonic consisting of 4 characters $X_1X_2X_3X_4$. The delivery period of the cascading EEX futures is encoded in the product name.

The following naming conventions are used:

| | Function | Values |
|---|---|---|
| $X_1X_2$ | Indicates the product line | F0 - Futures |
| $X_3$ | Indicates the delivery time | B – Baseload<br>P – Peakload |
| $X_4$ | Indicates the delivery period | Y – Year<br>S – Seasonal<br>Q – Quarter<br>A – Month (Base)<br>E – Month (Peak) |

Examples: FOBY is a base load product with a delivery period of one year.
FOPE is a peak load product with a delivery period of one month.

### 2.4.2 Naming of Cascading EEX Futures Contracts

For EEX products, the contract name contains the delivery year and the first delivery month. The following examples use the given naming convention for the products:

| Contracts | Delivery Period |
|---|---|
| FOBA Jan 01<br>FOBA Feb 01<br>FOBA Mar 01 | Delivery period is the month indicated in the contract specification. |
| FOBQ Jan 01<br>FOBQ Apr 01<br>FOBQ Jul 01 | Delivery period is the quarter starting with the month in the contract specification |
| FOBS Apr 01<br>FOBS Oct 01<br>FOBS Apr 02 | Delivery period is the season (half a year) starting with the month in the contract specification |
| FOBY Jan 01<br>FOBY Jan 02<br>FOBY Jan 03 | Delivery period is the year starting with the month in the contract specification. |

The finalized product specifications are available on the EEX website (www.eex.de).

### 2.4.3 Trading Unit Calculation for EEX Products

For financial futures the contract trading unit is usually the same as the product trading unit. For EEX products, only the contract trading unit is required. The trading unit for a particular contract is based on the number of delivery days in the delivery month, which is the same as a calendar month, and the units of energy to be delivered per day. The trading unit is shown on the *Market Overview* and *Contract Overview* windows in the trading application.

Trading Unit (in MWh) = Deliverable amount of energy per time unit (in MW) *
Delivery time unit per day (h/day) *
Number of delivery days per contract maturity (day).

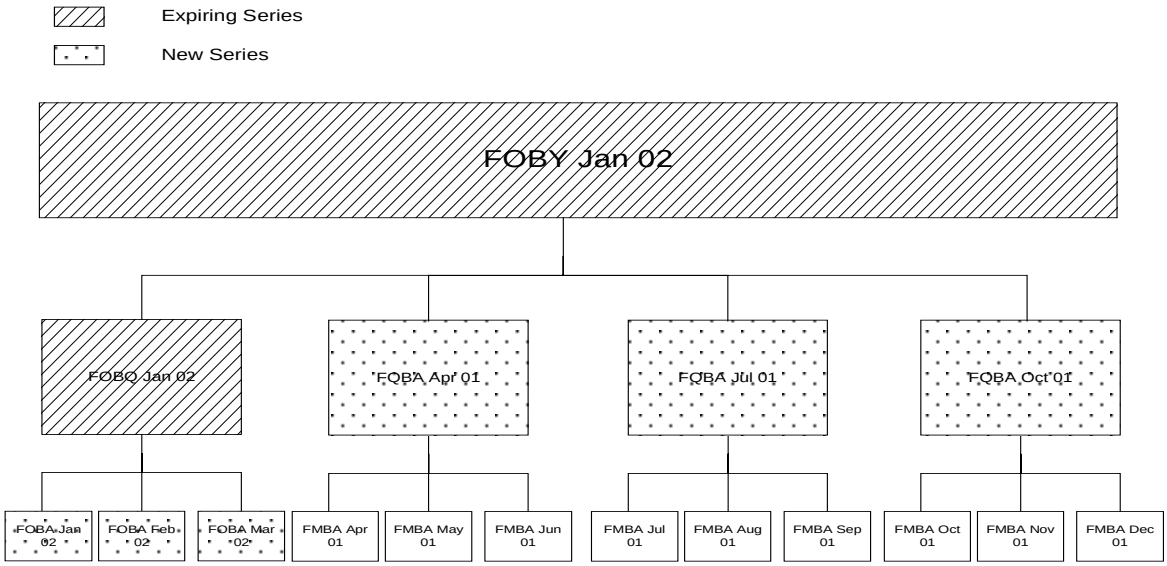
The trading unit for a new annual or quarterly contract (T) is calculated by summing the trading units of the bottom level contracts. For instance the trading unit of the quarterly contract is always the sum of the trading units (T ) of the three months (i=1..3) that make up the quarter.

$$T = \sum_{i=1}^{NoOfBottomContracts} T_i$$

### 2.4.4 Example: Expiration and Cascading of EEX Contracts

When a contract expires, it is checked whether the appropriate product is the product with the lowest level. In this case, the contract is settled as usual. For the higher level products, the positions are removed and new positions in each of the resulting contracts of the products of a deeper level are created.

Cascading of the parent contract will take place on expiration day. A contract is deemed a “parent” if it has a subordinate level set, and an exact cascade pattern that indicates what position transitions are allowed for settlement. The following example does not apply to seasonal products.




For the example shown, contract FOBY Jan 02 expires in December. On expiration day, positions in this annual product are cascaded down to positions in the first three monthly contracts, and positions in the second, third and fourth quarter. This processing is always the same for the expiration of annual contracts, and is the same for the expiration of seasonal contracts. In the latter case the contract cascades into the first three monthly contracts and the following quarters.

If the monthly contract expires on the current business day, the contract is cash settled in a normal manner. The same is true for the first month of an expiring seasonal contract. It is possible to process two cascading steps on the same day.

A contract may cascade directly from an annual to a monthly contract. Initially, there are 4 levels: annual, seasonal, quarterly, monthly. However, an annual contract cannot cascade to a seasonal contract, but to quarterly and monthly contracts. However, seasonal contracts are tradable and can cascade to quarterly or monthly contracts.

### 2.4.5 Expiration Month and Delivery Period

The delivery periods for cascading products the delivery period are defined as follows:

- Annual contracts always begin in January.
- Seasonal products always begin in April or October.
- Quarterly contracts always begin in January, April, July or October.

Annual, seasonal and quarterly contracts expire in the month before the delivery period. For example the FOBY Jan 02 contract expires in December 2001. The FOBQ Apr 02 contract expires in March 2002.

The expiration of monthly contracts has not changed.

### 2.4.6 Settlement Procedure for the new Products

Annual, seasonal and quarterly products are settled by the cascading position transfer as described in section 2.4.4.

For the monthly base contracts, the settlement procedure currently is cash settlement only.

### 2.4.7 Additional Margin – Cross Margining over Cascading Products

For EEX futures, positions can be held in annual, seasonal, quarterly and monthly contracts simultanously. Here, long term contracts can fully overlap short term contracts.

In terms of the risk of a potential loss on the next trading day, it is possible that gains in one contract can partially compensate for losses in other overlapping contracts. In the following portfolio, the potential liquidation costs are less than the costs of liquidating the individual positions:

10 long for FOBQ Jan 01

10 short for FOBA Jan 01

This is true regardless of the direction in which the prices of the single contracts move. However, it cannot be said that the prices of all products in a cascade are positively correlated for all contracts.

The functional solution by EEX is the following:

1. All positions in cascaded EEX futures are split into one part, which is not covered by a position in a long term product (non-crossed position), and another part, which is covered by a position in a long term product (crossed position).
2. For all non-crossed positions, additional margin is required as it is now.
3. For all crossed positions, a reduced volatility is assumed, which is determined as the volatility of the product multiplied by a reduction factor that is entered by Market Supervision.
4. The additional margin is computed with the reduced volatility.

A calculation example on “Additional Margin – Cross Margining over Cascading Products” is given in the updated “Eurex Information Manual”, available in a simulation version in September 2001.

### 2.4.8 New Report: Position Transfer for Expiring EEX Contracts (RPTCB115)

This report supports the control of position transfers between contracts of different products belonging to a cascade due to contract expirations of cascading EEX products. The report contains only EEX members and is available to Market Supervision, NCMs, DCMs, and GCMs.

```
EUREX                                POSITION TRANSFER FOR EXPIRING EEX CONTRACTS                    PAGE:        1
RPTCB115                                                                                        AS OF DATE: 20-12-01
                                                                                                  RUN DATE: 20-12-01

CLEARING MEMBER: ABCFR ABC BANK CORPORATION                                  CASCADE ID  : CASC1
EXCHANGE MEMBER: DEFGH DEF BANK CORPORATION                                  ACCOUNT     : P1

                                                 ---MOVEMENT---
      CONTRACT                  TRAN ID CODE      LONG   SHORT
------------------              ------------     -----   -----
  FOBY JAN 02                                     100-      0
  FOBQ JAN 02                    0000489          100+      0
  FOBQ APR 02                    0000490          100+      0
  FOBQ JUL 02                    0000491          100+      0
  FOBQ OCT 02                    0000492          100+      0

  FOBQ JAN 02                                     100-     50-
  FOBA JAN 02                    0000493          100+     50+
  FOBA FEB 02                    0000494          100+     50+
  FOBA MAR 02                    0000495          100+     50+

CLEARING MEMBER: ABCFR ABC BANK CORPORATION                                  CASCADE ID  : CASC1
EXCHANGE MEMBER: DEFGH DEF CORPORATION                                       ACCOUNT     : P2

                                                 ---MOVEMENT---
      CONTRACT                  TRAN ID CODE      LONG   SHORT
------------------              ------------     -----   -----
  FOBY JAN 02                                       0       9-
  FOBQ JAN 02                    0000496            0       9+
  FOBQ APR 02                    0000497            0       9+
  FOBQ JUL 02                    0000498            0       9+
  FOBQ OCT 02                    0000499            0       9+

  FOBQ JAN 02                                       0       9-
  FOBA JAN 02                    0000500            0       9+
  FOBA FEB 02                    0000501            0       9+
  FOBA MAR 02                    0000502            0       9+
```

## 2.5 CSD Selection per Security

With Eurex 5.0, the concept of allowing clearing members to select Central Securities Depositories (CSDs) on a security basis in the Eurex clearing system is introduced.

The current exchange clearing system supports a single ("home") CSD per clearing member, based on the clearing member's country of domicile. One deposit account number and three collateral account numbers must be maintained, per clearing member, at its "home" CSD.

The Eurex clearing system sends instructions for physical deliveries versus payment (DVP) and receipt versus payment (RVP) to two CSDs:

- SIS (SegaInterSettle, “SEGA”) for CHF denominated products
- CBF (Clearstream Banking, Frankfurt, “DBC”) for EUR and for all "non-Eurex currency" denominations.

In case both clearing members involved in the delivery process do not have the same “home” CSD, and the product they have to settle is denominated in the currency of their “home” CSD, both CSDs get an instruction for delivery outside the Exchange system.

Eurex clearing members maintain several relationships with CSDs, which could also be used for physical delivery transactions.

For clearing members Market Supervision maintains a list of CSDs to use for settlement. There is no limitation that one clearing member must use only one account per CSD. The accounts are either “own” or custodian accounts. Therefore, the settlement process is enhanced by the custodian CSD account functionality, which is subject to approval by the Eurex Board. An example:

A clearing member can use

- His own account at CBF to clear German equities
- His own account at SIS to clear Swiss equities
- ABCFR as custodian to clear French equities (ABCFR has an account at CBF)
- DEFFR as custodian to clear Dutch equities (DEFFR also has an account at CBF)

Physically delivered securities have a list of CSDs where they can be settled, and to which Eurex has an interface.

To each combination of clearing member and deliverable securities one of the clearing member’s CSDs is assigned automatically, depending on a priority given to the different settlement accounts of the clearer.

The clearing member can modify the selected CSD and account per security.

When settlement instructions are created in the batch, the selected CSD and determined account are used.

In a first step with Eurex 5.0, no new CSDs are added to the existing ones (CBF and SIS).

### 2.5.1 Criteria for Selection of CSD per Security and Clearing Member

One of the clearing member’s CSDs is selected automatically as default for the settlement of a security.

The automatic CSD selection is performed when a new share settled option is introduced or when new deliverable bonds are assigned to notional futures. The selection algorithm is as follows:

The list of CSDs per clearing member is compared against the list of CSDs per security:

Each of the clearing member’s CSDs is compared against the security CSD list and the first matching CSD is used. The CSD account list of the clearing member is ordered by a priority defined by the clearer.

It is assumed that every clearing member has at least one account where securities can be settled.

Every clearing member must have sufficient “own” or custodian account funds to settle all the underlying securities.

### 2.5.2 Special Requests of Clearing Members concerning the CSD where a Security should be settled

The clearing member can overwrite the automatically selected CSD in a newly created window. A validation ensures that the entered CSD can settle the ISIN and that a valid CSD/account combination for the member is chosen.

For further details on selection of CSD per security and clearing member please consult the updated "@X-tract Clearing User Guide", available in a simulation version in September 2001.

## 2.6 Automatic Exercise

Currently, the Eurex clearing system performs an automatic exercise for in-the-money (ITM) cash settled option products. A minimum in-the-money amount per product and account type is defined by Eurex Market Supervision. Though Market Supervision may provide minimum in-the-money amounts for all option products, the function of automatic exercise is currently limited to cash settled options. If an option contract is beyond the predefined minimum in-the-money amount on expiration day, the automatic exercise is performed.

Currently clearing members do not have any chance to intervene in the process of automatic exercise.

For Eurex 5.0 automatic exercise is extended to all option products, which includes cash and physically settled options.

The new automatic exercise for Eurex 5.0 will enable members to define the minimum in-the-money amount individually, so that every open option position with a defined minimum in-the-money amount may be exercised automatically on expiration day.

Additionally every option position can be excluded from automatic exercise by the member.

When new products are introduced, Market Supervision will have the possibility to define a default value for the in-the-money amount. The member will then have the opportunity to stay with the pre-set value or to define a new value which might also be a minimum ITM amount or 99,999.99 as the high value. The minimum ITM amount may also be entered as a percentage.

On database conversion day, when release 5.0 is implemented in the production and simulation environment, all minimum ITM-amounts already defined by Market Supervision for cash settled options, are assigned the default value. For physically settled options, the high value is set as the default value.

Automatic exercise is performed on expiration day only, regardless of whether the options are European or American style.

For further details on automatic exercise for ITM cash settled option products see the updated "@X-tract Clearing User Guide", available in a simulation version in September 2001.

## 2.7 New Report: Position Transfer Overview (RPTCB030)

RPTCB030 is a new report that lists the details of partial position transfer transactions for a member.

The following transfer transactions are contained in this report:

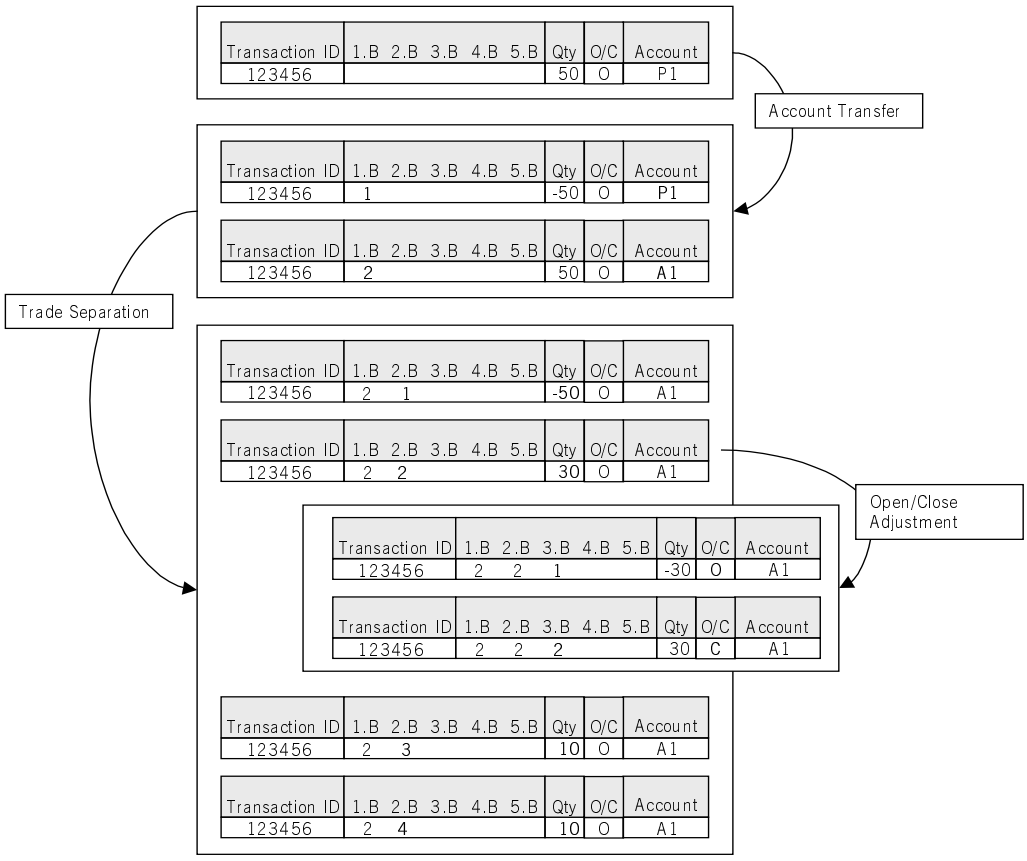
- 502: Partial position transfer
- 622: Account transfer
- 624: Complete position transfer
- 626: Full to agent account transfer

```
          1         2         3         4         5         6         7         8         9         10        11
 12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678
01|EUREX                                    POSITION TRANSFER OVERVIEW                                    PAGE:        1
02|RPTCB030                                                                                          AS OF DATE: 27-01-99
03|                                                                                                  RUN DATE  : 27-01-99
04|
05|CLEARING MEMBER ID : ABCFR DEUTSCHE SIMULATIONSBANK
06|EXCHANGE MEMBER ID : DEFFR DEUTSCHE TESTMEMBER BANK
07|TRANSACTION TYPE: 502 : PARTIAL TRANSF REQ
08|SEND
09|
10|TRAN ID  CONTRACT              TRAN ID   ACCT     TRANSF POSITION            COUNTERPARTY   ACCT    ADJUSTMENT   CUR
11|                                CODE     TYPE       LONG    SHORT           EXCH   CLEAR   TYPE    FEE
12|-------  --------------------  -------   ----   -------  -------         ------- -------   ----    ----------   ---
13|
14|007003   C BAY  JUN 99  4000     234561     A1         0        8          ABCFR   DEFDU    A1          2.00   EUR
15|
16|
```

## 2.8 Increased Number of Trade Adjustments

The Eurex system currently supports only a limited number of adjustments to a position transaction record. Each trade is tracked by writing an audit trail record. Each adjustment of a position transaction is tracked by writing new records with the same transaction ID as the original record, and new suffix numbers extending the transaction ID for each single detail record describing the adjustment. Each adjustment formats an additional byte of the suffix ID to link the related detail records per adjustment, and to track the sequence of adjustments. This results in a maximum of 5 adjustments per trade, as the suffix ID has a length of 5 bytes.

The following figure shows an example of the current situation:




Current Situation of Trade Adjustments

With the introduction of Eurex 5.0, the Eurex clearing system allows up to 99,999 trade adjustment records. Therefore the system supports a sufficient number of trade adjustments from a functional point of view.

The Suffix ID is changed from an alphanumeric 5-field-group to a numeric field containing 5 digits.

This Suffix ID is simply increased by 1 with each adjustment (from 1 to 99,999).

To reproduce the sequence of adjustments the original parent suffix ID is additionally stored with the transaction. The parent suffix ID will always be filled with the suffix ID of the transaction it is adjusting. For a historical trade transfer (HITT) this means, that the suffix ID of a record from the previous business day is taken as the parent suffix ID of this HITT record.

A parent adjustment cannot be adjusted further, this is indicated by the adjustment/reverse indicator (A/R), where “A” indicates an “adjusted” record, “R” indicates a “reversed” record and “N” indicates that this record is neither adjusted nor reversed. Further adjustments are only possible on records with an adjustment/reverse indicator of “N”.

In case of a trade reversal on a trade that is already adjusted, all trade adjustments of the tree have to be considered for possible reversal bookings. If one of the trade adjustments of the tree is designated for give-up, first the designation has to be cancelled and broadcast.

For open/close-adjustments and trade separations no reversal trade adjustments are written, since these types of transactions do not change the net position, so nothing has to be changed back. The adjustment indicator for these transactions is set from “N” to “A”, so that it is not available for further adjustments.

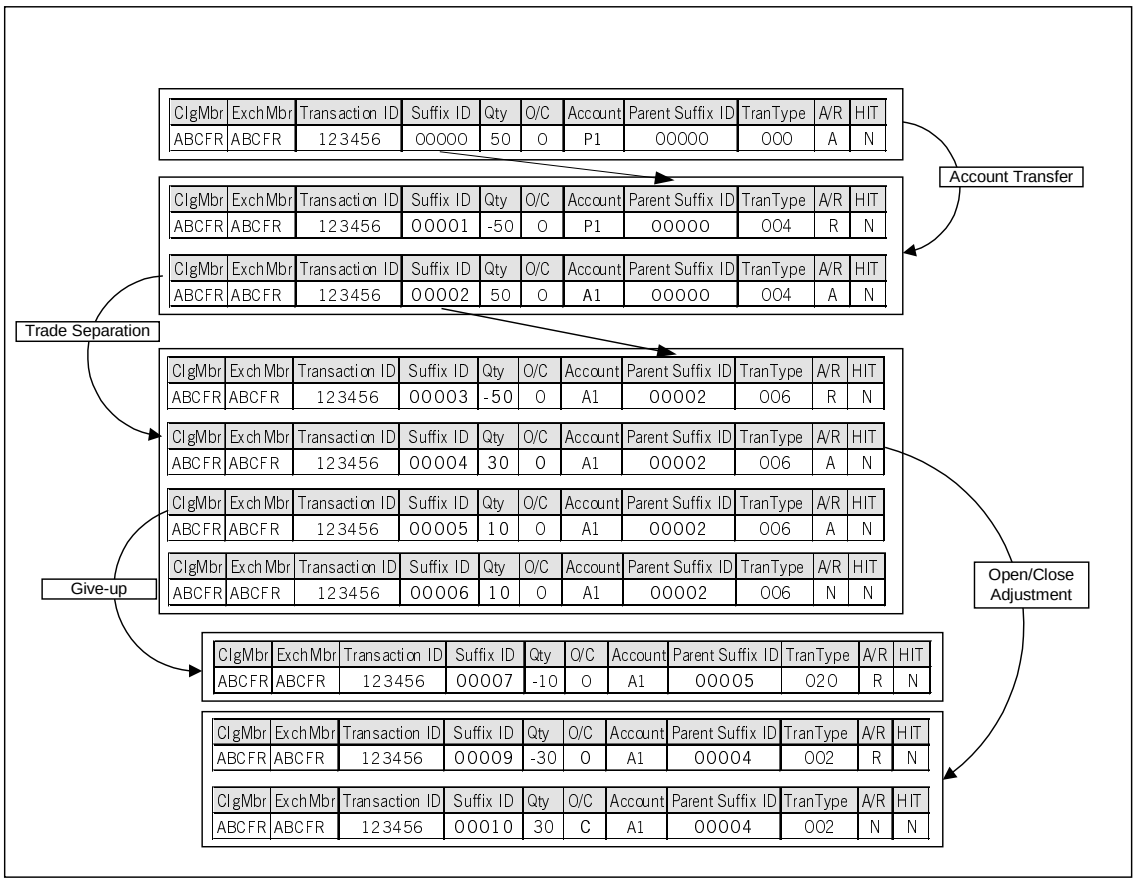
For trade account transfers and give-up/take-up transactions additional reversal trade adjustments have to be written, the net positions are then re-posted to the original account. These new trade reversal adjustments have the new transaction type “007” and adjustment/reverse indicators of “R” for the negative side of the re-posting transaction and “A” for the positive side of the transaction.

The parent suffix is filled with the same parent suffix as the adjustment it is reversing, so the adjustments and their reversals are grouped together under the same parent suffix ID.

Another flag (HIT) shows if the adjusted transaction results from a historical trade transfer (HITT) or from a historical give-up. This flag is set to “Y” for both types of historical adjustment and stays “Y” for all further adjustments with this position transaction record. If a position transaction record is based on a trade of the current business day, the HIT flag is set to “N” (non-historical). Historical trade adjustments based on a trade of the previous business day can not be reversed by a trade reversal.

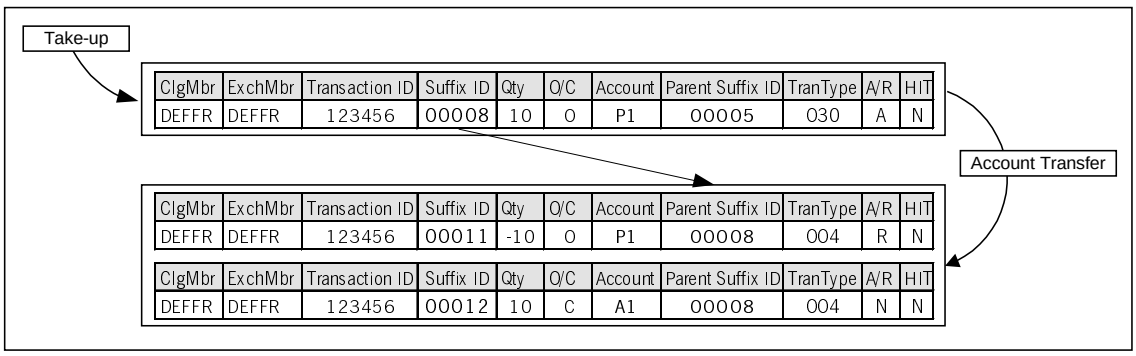
Every change of a position transaction record, even if only a flag like the adjustment/reversal indicator is changed, is broadcast to the member. This does not indicate necessarly that a position has been changed. If a position is changed by a position transaction broadcast, this record includes a new suffix ID.

The following graphs illustrate the future situation for trade adjustments (first just the trade for account transfer, trade separation, open/close adjustments and give-up/take-up). The trade adjustments are illustrated in the figures “Future Situation Of Trade Adjustments (Take-up plus Account Transfer, Trade Separation, Give-up and O/C-Adjustment)” and “Future situation of Trade Take-up and subsequent Account Transfer”, which describe the take-up. The purpose of the examples is to illustrate how the IDs are allocated and how the new sorting structure is implemented.




| ClgMbr | ExchMbr | Transaction ID | Suffix ID | Qty | O/C | Account | Parent Suffix ID | TranType | A/R | HIT |
|---|---|---|---|---|---|---|---|---|---|---|
| ABCFR | ABCFR | 123456 | 00000 | 50 | O | P1 | 00000 | 000 | A | N |
| ABCFR | ABCFR | 123456 | 00001 | -50 | O | P1 | 00000 | 004 | R | N |
| ABCFR | ABCFR | 123456 | 00002 | 50 | O | A1 | 00000 | 004 | A | N |
| ABCFR | ABCFR | 123456 | 00003 | -50 | O | A1 | 00002 | 006 | R | N |
| ABCFR | ABCFR | 123456 | 00004 | 30 | O | A1 | 00002 | 006 | A | N |
| ABCFR | ABCFR | 123456 | 00005 | 10 | O | A1 | 00002 | 006 | A | N |
| ABCFR | ABCFR | 123456 | 00006 | 10 | O | A1 | 00002 | 006 | N | N |
| ABCFR | ABCFR | 123456 | 00007 | -10 | O | A1 | 00005 | 020 | R | N |
| ABCFR | ABCFR | 123456 | 00009 | -30 | O | A1 | 00004 | 002 | R | N |
| ABCFR | ABCFR | 123456 | 00010 | 30 | C | A1 | 00004 | 002 | N | N |

Future Situation Of Trade Adjustments (Take-up plus Account Transfer, Trade Separation, Give-up and O/C-Adjustment)




| ClgMbr | ExchMbr | Transaction ID | Suffix ID | Qty | O/C | Account | Parent Suffix ID | TranType | A/R | HIT |
|---|---|---|---|---|---|---|---|---|---|---|
| DEFFR | DEFFR | 123456 | 00008 | 10 | O | P1 | 00005 | 030 | A | N |
| DEFFR | DEFFR | 123456 | 00011 | -10 | O | P1 | 00008 | 004 | R | N |
| DEFFR | DEFFR | 123456 | 00012 | 10 | C | A1 | 00008 | 004 | N | N |

Future Situation of Trade Take-up and subsequent Account Transfer

This leads to the following impacts for members and vendors:

- All interfaces (VALUES API) and reports where the suffix ID is used have to be adapted. Affected reports include:
    - RPTCB010 – “Position Detail” and RAWCB010 – “Position Detail” (Raw Data)

- RPTCB102 – “Cash Settled Contracts” and RAWCB102 – “Cash Settled Contracts” (Raw Data)
- RPTCB110 – “Account Transfer Exception”
- RPTCB130 – “Give-Up Trade History”
- RPTCB140 – “Accepted Give-Up Trades”
- RPTCB150 – “Take-Up Trade History”
- RPTCB160 – “Accepted Take-Up Trades”

- The sort order of the transactions in the above reports and raw data files change.
- The sort order of VALUES API inquiries change.
- The new parent suffix ID and the adjustment flag help to identify the original transaction.
- The new adjustment flag helps to identify which transactions can be further adjusted.

For full details regarding the VALUES interface changes, please refer to the VALUES modifications announcement, published in May, 2001 with Circular 043/01. The changes to VALUES application requests concerning trade adjustments are briefly summarized in the Technical Release Notes.

For further details on the extension of the trade adjustment facility see the updated “@X-tract Clearing User Guide”, available in a simulation version in September 2001.

### 2.8.1 Conversion of Eurex 4.1 Transaction IDs Suffixes to Eurex 5.0

In order to identify 'Historically Given-up' positions by traders after the production start date of Eurex 5.0, the existing Eurex 4.1 transaction ID suffixes are converted to the new Eurex 5.0 format. The algorithm used for the suffix conversion is described in the Eurex 5.0 Technical Release Notes.

## 2.9 New Report: Transaction Mix Report (RPTCB068)

With the introduction of the MISS architecture the possibilities for Eurex members to request data (e.g. profiles containing contracts, products and external underlyings) has dramatically increased.

To provide Eurex members with detailed information about their transaction behavior, a new member report “Eurex Transaction Mix Report” (RPTCB068) is implemented.

RPTCB068 is a new report divided into three parts:

The first part of the report contains a member-specific summary of the number of transactions generated per underlying product:

```
          1         2         3         4         5         6         7         8         9        10        11
01|EUREX                                          TRANSACTION MIX REPORT                                 PAGE:        1
02|RPTCB068                                                                                      AS OF DATE: 13-02-01
03|                                                                                                RUN DATE: 13-02-01
04|                                            PRODUCT TRANSACTION DETAILS
05|
06|
07|MEMBER: ABCFR DEUTSCHE SIMULATIONSBANK AG       TOTAL TRANSACTION COUNT: 8109
08|
09|    PROD UNDERLYING                     NO TRANS    LIMIT EXCEEDED BY
10|    ---- ------------------------------ -------- -------- ------------------------------------------------
11|    **** UNSPECIFIC PRODUCT                  746     3000
12|    AAR  OPT ON ABN AMRO                       2     4000
13|    ADS  OPT ON ADIDAS AG                    239     4500
14|    ALV  OPT ON ALLIANZ AG HOLDING           215     4500
15|    BAS  OPT ON BASF AG -ST-                 190     4500
16|    DBK  OPT ON DEUTSCHE BANK AG             603     4500
17|    DTE  OPT ON DEUTSCHE TELEKOM AG         1232     4500
18|    EOA  OPT ON E.ON AG                      226     4500
19|    FDAX FUT ON DAX INDEX                    427     7000
20|    FESX FUT ON EURO STOXX 50 INDEX          207     6000
21|    FEU3 THREE-MONTH-EURIBOR FUT. (ACI)      148     8000
22|    FGBM FUT 4 1/2-5 1/2Y.GOV.BONDS 6%      1145    12000
23|    HEN3 OPT ON HENKEL KGAA VZ.               68     4500
24|    HVM  OPT ON HYPOVEREINSBANK AG           157     4500
25|    IFX  OPT ON INFINEON                     270     4500
26|    KAR  OPT ON KARSTADT QUELLE AG           152     4500
27|    LIN  OPT ON LINDE AG                       4     4500
28|    MAN  OPT ON MAN AG -ST-                  105     4500
29|    MUV2 OPT ON MUENCHNER RUECKVERS AG       225     4500
30|    NOA3 OPT ON NOKIA CORP. A FM 5           355     4500
31|    ODAX OPTION ON THE DAX INDEX             668     7000
32|    OESX OPTION ON EURO STOXX 50 INDEX        10     6000
33|    OGBL OPTION ON BUND FUTURE                54    12000
34|    OGBS OPTION ON SHAZ FUTURE                 8    12000
35|    SCH  OPT ON SCHERING AG                  291     4500
36|    TKA  OPT ON THYSSEN KRUPP AG             137     4500
37|    VOW  OPT ON VW AG -ST-                   225     4500
38|                                          --------
39|         TOTAL                              8109
40|
41|
```

The second part of the RPTCB068 report shows the transaction count for every node of the member:

```
          1         2         3         4         5         6         7         8         9        10        11
01|EUREX                                          TRANSACTION MIX REPORT                                 PAGE:        2
02|RPTCB068                                                                                      AS OF DATE: 13-02-01
03|                                                                                                RUN DATE: 13-02-01
04|                                            NODE TRANSACTION DETAILS
05|
06|
07|       NODE TXN COUNT    NODE TXN COUNT    NODE TXN COUNT    NODE TXN COUNT    NODE TXN COUNT    NODE TXN COUNT
08|       ---- ---------    ---- ---------    ---- ---------    ---- ---------    ---- ---------    ---- ---------
09|       0299       239    0300       215    2410       207    2485      1232    2486      2192    2487      2939
10|       4073      1001    4074         2    4436        68    4471         4    4472        10
11|            ---------
12|       TOTAL     8109
13|
14|
15|
```

The third part of the report shows the number of transactions, the originating node, the transaction code and a description of the transaction, sorted by trader:

```
          1         2         3         4         5         6         7         8         9        10        11
 12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678
01|EUREX                                          TRANSACTION MIX REPORT                                    PAGE:         3
02|RPTCB068                                                                                          AS OF DATE: 13-02-01
03|                                                                                                    RUN DATE: 13-02-01
04|                                              NODE TRANSACTION DETAILS
05|
06|
07|    TRADER: ABCFR2MC02D
08|                     COUNT TXN    PROD NODE DESCRIPTION
09|                     ----- ------ ---- ---- -------------------------------------------------
10|                         2 340023 FGBM 0299 Goto TRAD
11|                         4 340029 FGBL 0299 Goto FUTS
12|                         3 341022 FGBL 0299 Goto OODT Scroll
13|                         5 341023 FGBL 0299 Goto TRAD Scroll
14|                         1 341026 FGBL 0299 Goto OVER Scroll
15|                         1 341026 FGBM 0299 Goto OVER Scroll
16|                         1 350010 FGBL 0299 Futures: Order Add
17|                         1 350010 FGBM 0299 Futures: Order Add
18|                         4 3C100D FGBL 0299 Tr 5.1.3 Session Profile
19|                         4 3C100P **** 0299 Tr 5.1.3 Session Profile
20|                         4 3SIGN0 **** 0299 Sign On
21|                     -----
22|           TOTAL        30
23|
24|    TRADER: ABCFR21M01D
25|                     COUNT TXN    PROD NODE DESCRIPTION
26|                     ----- ------ ---- ---- -------------------------------------------------
27|                         4 340029 FGBL 0299 Goto FUTS
28|                         1 340029 FGBM 0299 Goto FUTS
29|                         1 340029 FGBS 0299 Goto FUTS
30|                         1 341022 FGBL 0299 Goto OODT Scroll
31|                         1 341026 FGBL 0299 Goto OVER Scroll
32|                         1 341029 FGBL 0299 Goto FUTS Scroll
33|                         2 350010 FGBL 0299 Futures: Order Add
34|                         4 3C100D FGBL 0299 Tr 5.1.3 Session Profile
35|                         4 3C100P **** 0299 Tr 5.1.3 Session Profile
36|                         4 3SIGN0 **** 0299 Sign On
37|                     -----
38|            TOTAL      23
39|
```

The availability of this report increases the transparency of the transaction limits and the respective application behavior.

The most important business rationale is that the RPTCB068 report allows a much faster reaction on the member side if set-up or application problems create an unusual transaction load.

# 3 Enhanced Java-based Trading and Clearing GUIs and APIs

## 3.1 Enhancement of @X-ceed Trading GUI and @X-tract Clearing GUI

With the introduction of Eurex 5.0, the switch from user devices to MISS technology will be complete. All remaining functionality available on the legacy user device style FMS screens are incorporated in the graphical user interfaces @X-tract (clearing) and @X-ceed (trading). These are only available for the MISS/workstation-architecture.

The majority of Eurex 5.0 GUI changes result from the implementation of FMS-screen functions.

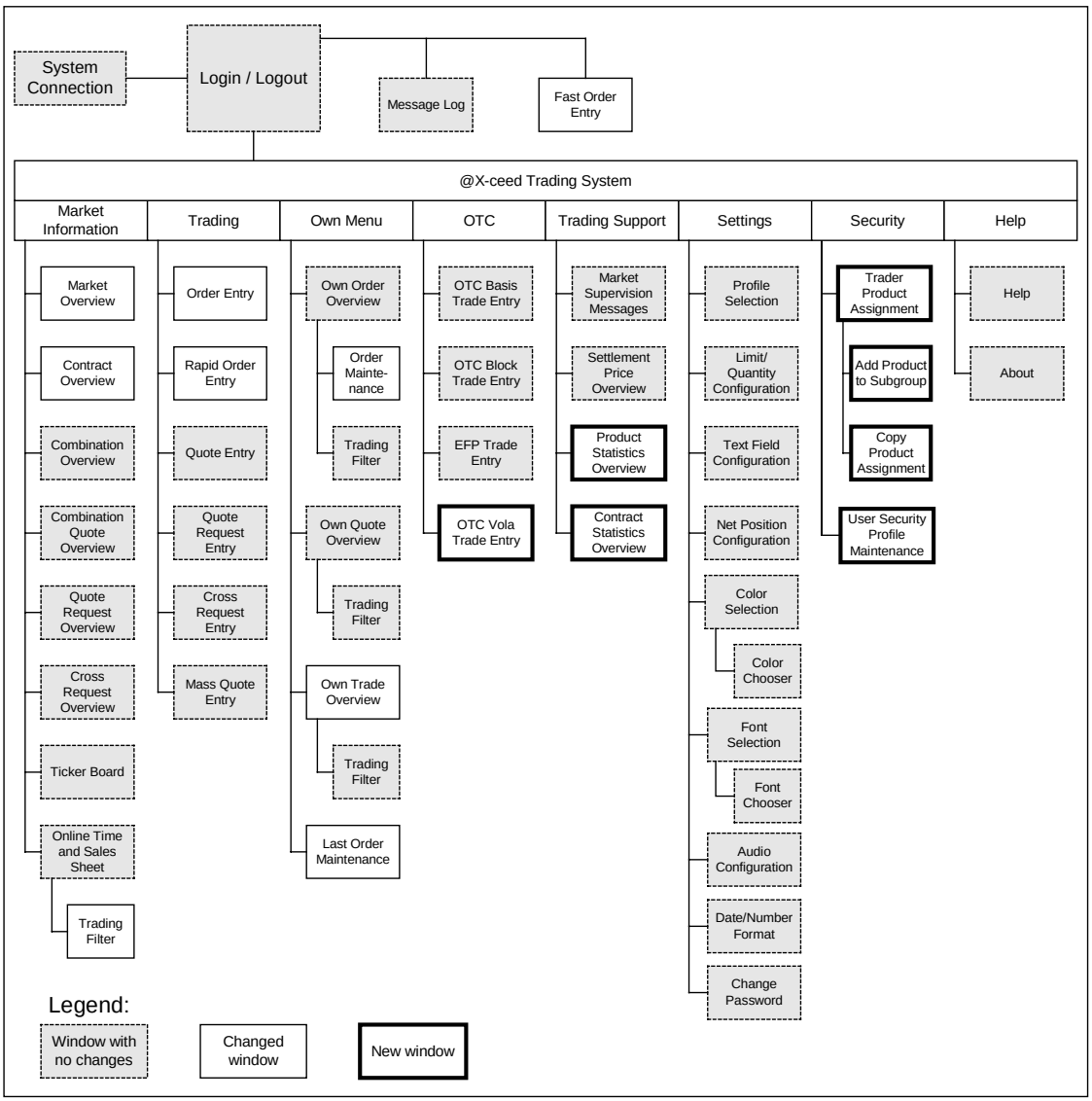
All changes in the @X-ceed and @X-tract applications are described in detail. An overview of the application menu structure is provided and new, changed or common windows are distinguished.

The trading and clearing GUIs, and the extended APIs, are available in December 2001, the simulation phase for the updated @X-ceed and @X-tract applications, and the extended APIs, starts in October 2001.

### 3.1.1 @X-ceed Trading GUI Modifications – Window Flow

A high level overview of the additions and modifications to the @X-ceed Trading GUI Application is shown below. At the top level a new entry is added to the Trading GUI menu bar – *Security*. The window flow below shows the new menu entry, the new windows, changed windows and unchanged windows in context.

In addition to the new *Security* menu entry, some new windows are added, and a number are modified. Abstracts of the window changes are listed in section 4.1.




Trading GUI Menu Structure Overview

### 3.1.2 General Functional Changes in the new @X-ceed Trading GUI

Due to the complete reworking of the underlying GUI application framework, new functions are introduced:

- User-defined sorting is now saved with “Save Settings” and restored by re-opening the window.
- A manual stop of an inquiry is not needed any longer, because the user gets immediate responses, and no longer waits any more until the whole response has arrived. The “Stop Inquiry” buttons are thus removed. A new inquiry progress indicator appears at the left side of the status bar while an inquiry is running and vanishes when the inquiry is completed.

- The communication behaviour between Overview window and Trading Filter has been reworked to be consistent in both GUIs: A re-inquiry from the Overview window clears all non-mandatory fields of the Trading Filter; the Trading Filter stays open in this case and shows the title of its parent window.
- The ability to disable broadcasts is removed.
- Quote requests with Qty=0 can now be easily submitted via mouseclick.

## 3.2 @X-tract Clearing GUI - Modifications

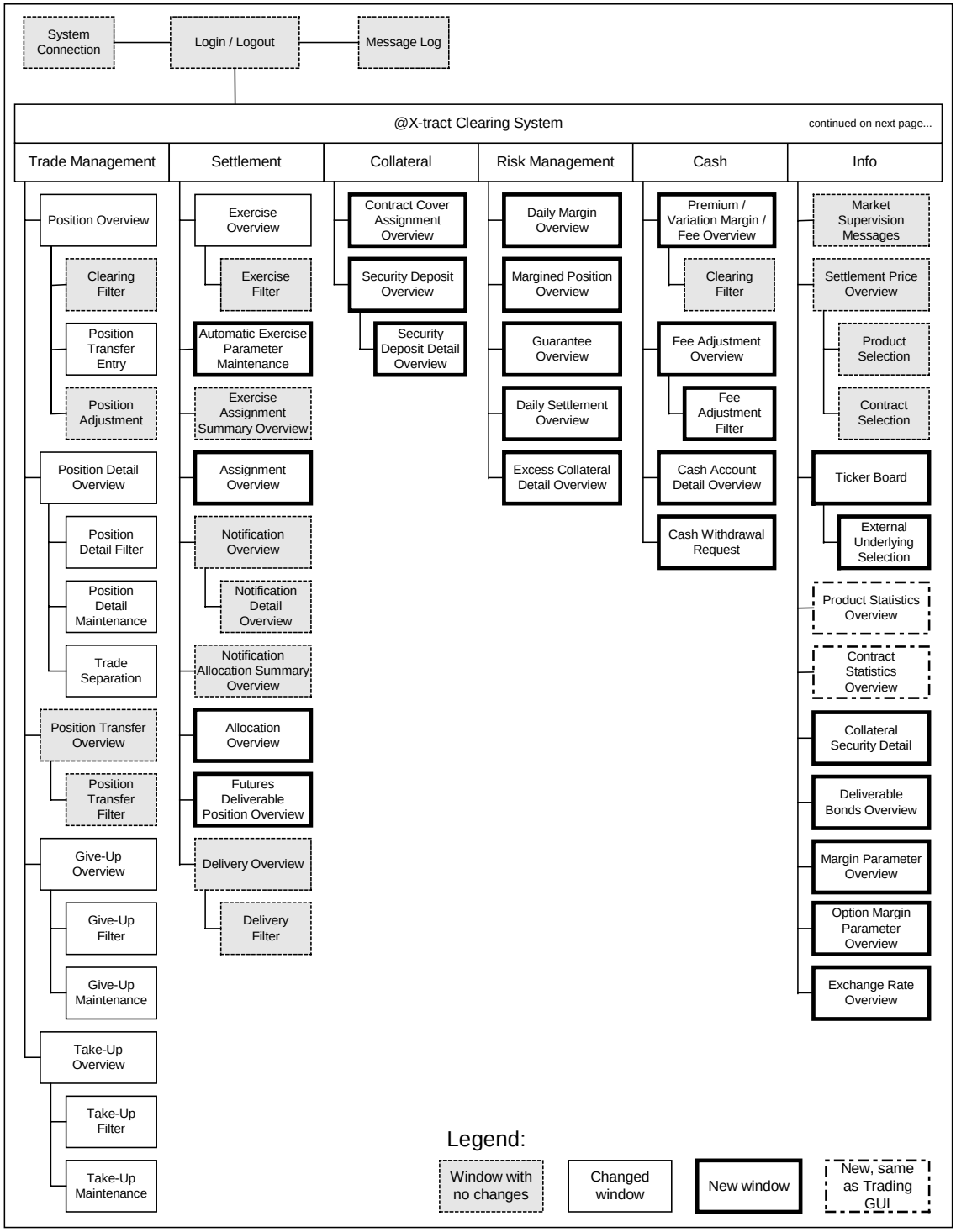
Starting with Eurex 5.0, the support of the user devices will be completely terminated. This includes all FMS screens, the SHIFT (Screen Handling Image For Trading) and the BOF handling is then only available over MISS. The related executables will no longer be rolled out to the members. Validations in the application will ensure that these screens can no longer be used.

The clearing GUI @X-tract and the API are enhanced to cover all clearing functions currently provided by the FMS application.

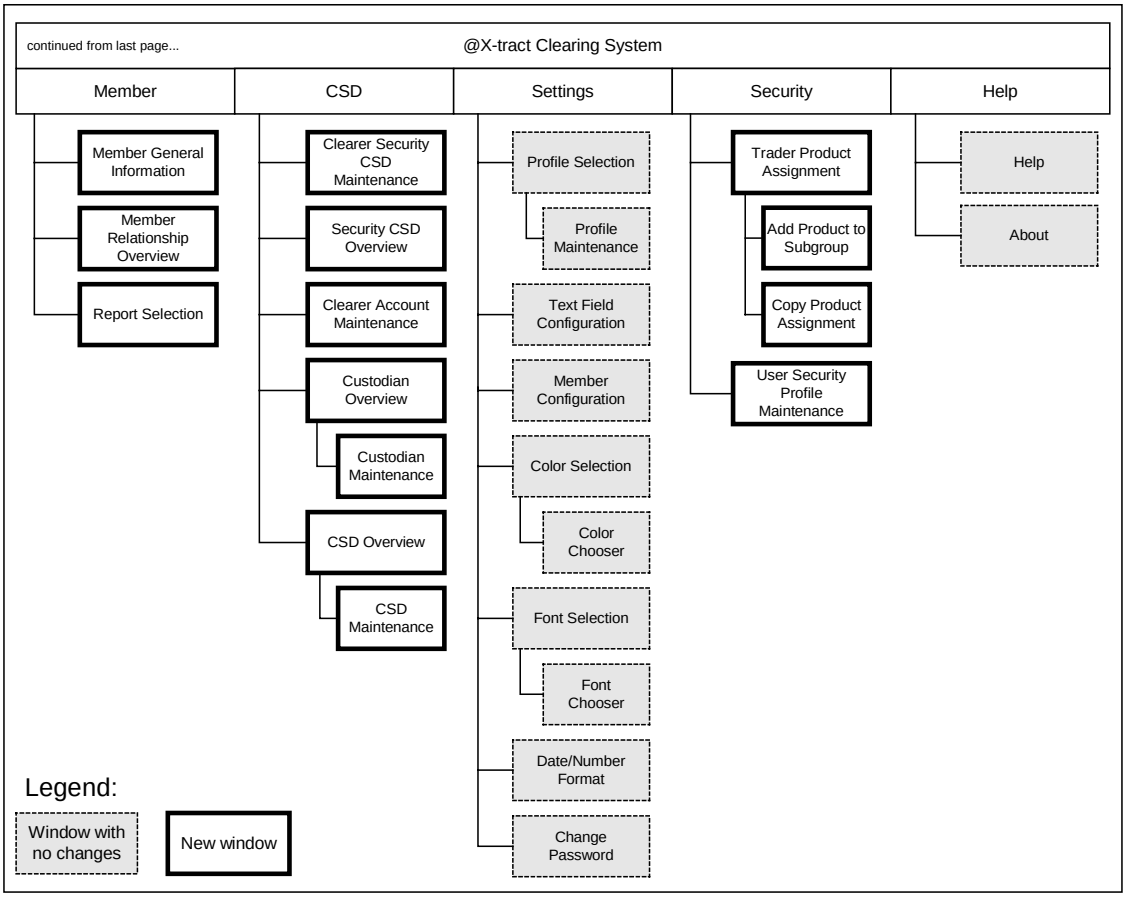
The enhanced @X-tract clearing GUI and API are available in December 2001. The simulation phase for the new GUI starts in October 2001.

### 3.2.1 @X-tract Clearing GUI Modifications – Window Flow

Here a high level overview of the additions and modifications to the @X-tract clearing GUI application is shown. At the top level several new entries are added to the clearing GUI menu bar –*Collateral*, *Risk Management*, *Cash*, *Member*, *CSD*, and *Security*. The window flow below shows the new menu entries, the new windows, changed windows and unchanged windows in context.




Clearing GUI Menu Structure Overview – Part 1




Clearing GUI Menu Structure Overview – Part 2

In addition to the new menu entries, some new windows are added and a number are modified, abstracts of the window changes are listed in section 4.2.

### 3.2.2 General Functional Changes in the new @X-tract Clearing GUI

Due to the complete reworking of the underlying GUI application framework, new functions are introduced:

- A flexible “sort” functionality allows user-defined sorting in applicable windows
- A “freeze column” functionality is offered in the listboxes of applicable windows
- A manual stop of an inquiry is not needed any longer, because the user gets immediate responses, and no longer waits any more until the whole response has arrived. The “Stop Inquiry” buttons are thus removed. A new inquiry progress indicator appears at the left side of the status bar while an inquiry is running and vanishes when the inquiry is completed.
- The *Market Supervision Messages* window is replaced by the version from the existing @X-ceed trading application. A single, instead of a double, left-click on a headline in the upper list box displays the entire message in the lower box and the headline in the field in the middle of the window.

- The *Eurex Clearing System Login* window blanks the identification and password entry fields in case the login is rejected.
- A confirmation window pops up when the user deletes a position transfer record in the *Position Transfer Overview* window.

# 4 Modified Windows and Reports

A list of all modified and new windows and reports for Eurex 5.0, including a brief description of the changes, is shown in the following sections.

Detailed descriptions are published in the Eurex "@X-ceed Trading User Guide" (X0006900) and in the Eurex "@X-tract Clearing User Guide" (X0006100). First versions of the updated user guides are available in September 2001.

The described modifications to the layouts of windows and reports are introduced in December 2001.

## 4.1 Windows – @X-ceed Trading System

For the windows of the enhanced trading GUI @X-ceed, only modifications to the corresponding windows of the Galaxy-based trading GUI X-ceed, as well as new windows, are listed below.

### 4.1.1 Main Trading Menu

| Window name | Org. | Short description of change |
|---|---|---|
| @X-ceed Trading System | Eurex/ EEX | A new menu item *Security* is included, where the functionality of relevant legacy FMS screens is made available to the members. |
| Fast Order Entry | Eurex/ EEX | Users are able to select the G1 or G2 accounts for combination orders. These will be accepted as valid input in the *Act* field. |

### 4.1.2 Menu Item "Market Information"

| Window name | Org. | Short description of change |
|---|---|---|
| Market Overview | EEX, Eurex | New features are the inclusion of Inter-Product Spread (IPS) information and the net price change in relation to the previous settlement price. A new menu item, "*Submit Quote Request*", is included to allow a quick submission of quote requests.<br>A new inquiry in the *Market Overview* window clears the Trade *Ticker Log* window. |
| Contract Overview | EEX, Eurex | An additional field is added to the upper row that contains the net change since previous settlement price (*NetChg*).<br>A new inquiry in the *Contract Overview* window clears the *Trade Ticker Log* window. |

| Window name | Org. | Short description of change |
|---|---|---|
| Trading Filter | EEX, Eurex | The *Trading Filter* window supports all trade types including the new type “V” for OTC vola trades.<br><br>The behavior of the *TrdTyp* field is dependent on the calling window. If the window is called from the *Own Trade Overview* window, the TrdTyp field is filled with “*”, otherwise it is blank. If it is called from either the *Own Trade Overview* window or the *Online Time and Sales Sheet* window it is an editable window and can accept the values “ ”, “B”, “O”, “E” or “V”. When called from any of the other windows, it is a display window.<br><br>The *Trading Filter* window title now shows the title of its parent window. |

### 4.1.3 Menu Item “Trading“

| Window name | Org. | Short description of change |
|---|---|---|
| Order Entry | EEX, Eurex | Users are able to select the G1 or G2 accounts for combination orders. |
| Rapid Order Entry | EEX, Eurex | If the user chooses one of the *G1* or *G2* accounts on the *Fast Order Entry* window and then does a *Save Settings* operation, then the selected G account is also available for combination orders in this *Rapid Order Entry* window. |

### 4.1.4 Menu Item “Own Menu“

| Window name | Org. | Short description of change |
|---|---|---|
| Order Maintenance | EEX, Eurex | Users can select the G1 or G2 accounts for combination orders.<br><br>Since the subgroup of the order to be modified is predefined by the selection of the subgroup in the window from which the order is entered, the change-subgroup functionality isa not supported in *Order Maintenance*. The ability to change the subgroup from the *Select* menu item therefore is removed.<br><br>If an order is changed while being edited by the user, the order display data is updated by means of a dialog window. |

| Window name | Org. | Short description of change |
|---|---|---|
| Own Trade Overview | EEX, Eurex | For selected rows, certain accumulations and averages are calculated on demand.<br>Four fields and two buttons are new to the window. The fields are *AccBuyQty, AvgBuyPrice, AvgSellPrice* and *AccSell* and the buttons are *Calculate* and *Clear.* |
| Last Order Maintenance | EEX, Eurex | Users can to select the G1 or G2 accounts for combination orders.<br>Since the subgroup of the last order entered is defined by the selection of the subgroup in the window from which the last order was entered, the change-subgroup function is not supported for *Last Order Maintenance*. The ability to change the subgroup from the 'Select' menu item is removed. |

### 4.1.5 Menu Item "OTC"

| Window name | Org. | Short description of change |
|---|---|---|
| OTC Vola Trade Entry | Eurex | **NEW:** The *OTC Vola Trade Entry* window allows the user to enter, modify, delete and approve off-exchange vola trades. A list box is used to collect several trades, which then are then processed together. |

### 4.1.6 Menu Item "Trading Support"

| Window name | Org. | Short description of change |
|---|---|---|
| Product Statistics Overview | Eurex, EEX | **NEW:** The *Product Statistics Overview* window delivers a quick overview of the derivatives market, showing trade amounts for futures and options, with a distinction between call and put options. The *Product Statistics Overview* window displays all traded products, their trading currency and the traded volumes for the current day. For each derivatives market product the *Product Statistics Overview* window also displays the underlying name with its price, currency and trading exchange.<br>The information displayed in the *Product Statistics Overview* window list box is sorted by product. |

| Window name | Org. | Short description of change |
|---|---|---|
| Contract Statistics Overview | Eurex, EEX | **NEW:** The *Contract Statistics Overview* window delivers a detailed overview of all tradable contracts for a selected product or profile.<br>For any product selected by the user, the *Contract Statistics Overview* window displays a broad range of information.<br>For every options contract, it lists the last, day's highest and day's lowest price, trading volume, previous day's trading volume, average volume over the previous five days and open positions on the last trading day for both call and put contracts.<br>The same set of statistics is also presented for futures contracts, along with the volume of IPS contracts traded. |

### 4.1.7 Menu Item "Security"

| Window name | Org. | Short description of change |
|---|---|---|
| Trader Product Assignment Maintenance | Eurex, EEX | **NEW:** The *Trader Product Assignment Maintenance* window is used to set up product assignments for traders. This window has two additional menu items, *Add Product to Subgroup* and *Copy Product Assignment*. These items display a popup dialog (child window) that executes additional features. The window is static and therefore not dynamically updated.<br>Assignments displayed in the *Trader Product Assignment Maintenance* list boxes are sorted by product ID. |
| Add Product To Subgroup | Eurex, EEX | **NEW:** The *Add Product to Subgroup* window enables the user to add a new product and associated maximum quantity to the list of products in which a trader subgroup may trade, or to amend the maximum quantity associated with the product. |
| Copy Product Assignment | Eurex, EEX | **NEW:** The *Copy Product Assignment* window accepts the names of the source ("from") and target ("to") traders for processing. For the last three characters of the target trader ID, a wildcard is accepted. |

| Window name | Org. | Short description of change |
|---|---|---|
| User Security Profile Maintenance | Eurex, EEX | **NEW:** The *User Security Profile Maintenance* window is used to control the access of users to the exchange functions, and to maintain the security profiles of users. It displays the system functions and the user's current access levels in several tab panes. The tabs group the functions by functional areas: trading, clearing, security, and administration. |

## 4.2 Windows – @X-tract Clearing System

The following table lists the differences between Eurex 4.1 and 5.0.

### 4.2.1 Main Clearing Menu

| Window name | Org. | Short description of change |
|---|---|---|
| Main Clearing Menu Window | Eurex/ EEX | New items in the *Settlement* menu are *Assignment Overview*, *Allocation Overview* and *Futures Deliverable Position Overview* are introduced.<br>A new menu *Collateral* is introduced, with items for *Contract Cover Assignment Overview* and *Security Deposit Overview*.<br>A new menu *Risk Management* is introduced, with items for *Daily Margin Overview, Margined Position Overview, Guarantee Overview, Daily Settlement Overview* and *Excess Collateral Detail Overview.*<br>A new menu *Cash* is introduced, with items for *Premium Variation Margin Fee Overview, Fee Adjustment Overview, Cash Account Detail Overview and Cash Withdrawal Request*.<br>In the menu *Info* are the new items are *Ticker Board, Product Statistics Overview, Contract Statistics Overview, Collateral Security Detail, Deliverable Bonds Overview, Margin Parameter Overview, Option Margin Parameter Overview* and *Exchange Rate Overview* introduced.<br>A new menu *Member* is introduced, with items for *Member General Information, Member Relationship Overview* and *Report Selection.*<br>A new menu *CSD* is introduced, with items for *Clearer Security CSD Maintenance, Security CSD Overview, Clearer Account Maintenance, Custodian Overview and CSD Overview.*<br>A new menu *Security* is introduced, with items for *Trader Product Assignment Maintenance and User Security Profile Maintenance.* |

### 4.2.2 Menu Item “Trade Management“

| Window name | Org. | Short description of change |
|---|---|---|
| Position Overview | Eurex/ EEX | In the *Position Overview* window, a new column is implemented to display the excluded positions from automatic exercise (AbandPos). |
| Position Transfer Entry | Eurex/ EEX | The validation of *Long* and/or *Short* quantity entered against the long and/or short positions available for transfer, as displayed in the *Position Overview* window is removed. |
| Position Detail Overview | Eurex/ EEX | Additional optional filter criteria are added to the *Position Detail Filter* window. The criteria are as follows: trade type, transaction ID (without Suffix), from/to, order number, trader ID and the selection between full and active trade history. The full trade history includes reversals and original transaction. The active trade history displays the trades available for modification.<br><br>The added *TrdUnit* field displays the trade unit of the contract.<br><br>Four new columns are implemented to display the following information: SuffixID (indicates the sequence number of a trade adjustment in chronological order), ParentSuffixID (indicates the parent-child relation of the adjustments), HIT (historical trade flag indicating if the underlying trade or trade adjustment is of the current or the previous trading day), and A/R (adjustment/reverse flag indicating if any tap is feasible, i.e. if the indication is “A” for adjusted or “R” for reverse, no further adjustments can be done. Otherwise if it indicates “N” for new, any further adjustment is possible).<br><br>The *Position Detail Overview* window is enhanced to distinguish OTC vola trades from on-exchange trades. For OTC vola trades, a “V” appears for the trade type. |
| Position Detail Maintenance | Eurex/ EEX | The *Position Detail Maintenance* window allows the exchange member to perform O/C trade adjustments and account transfers.<br><br>The same four new columns are in the *Position Detail Maintenance* window as implemented in the *Position Detail Overview* window. |

| Window name | Org. | Short description of change |
|---|---|---|
| Trade Separation | Eurex/ EEX | Within the *Trade Separation* window two new information fields are implemented:<br>• SuffixId, which indicates the sequence number of a trade adjustment in chronological order and<br>• HIT, which indicates if the underlying trade or trade adjustment is current or from the previous trading day. |
| Position Detail Filter | Eurex/ EEX | Additional optional filter criteria are added to the *Position Detail Filter* window. The criteria are as follows: trade type, transaction ID (without Suffix), from/to, order number and trader ID.<br>To select all trade types, the TrdTyp field is pre-filled with “*”. To select trades with the trade type " " - blank can be entered. Additional trade types: "E" - EFP trade, "B" - OTC basis trade, "O" - OTC block trade, "V" - OTC vola trade.<br>The radio button group *Full/Active* offers the possibility to change the display mode of the *Position Detail Overview* window to show either all trades including reversals and original transactions, or just the trades that are available for modification. |
| Give-Up Overview | Eurex/ EEX | The *Give-up Overview* window displays all trade transactions that are valid for give-up and allows the give-up member and his clearing member to handle trades or transactions for give-up and give-up acceptance.<br>Give-up Exchange members are allowed to modify and delete give-up transactions or orders which are in Status “G“ (give-up accepted). The status is changed to “M“ (if Modified) or “ “ (blank if deleted).<br>To specify a contract or a product as filter criteria, the entry line at the top of the window can be used. This entry line is disabled while no filter is selected.<br>Within the *Give-up Overview* window two new columns are implemented, displaying the following information:<br>• SuffixId - The suffix ID indicates the sequence number of a trade adjustment, in chronological order.<br>• HIT - The historical trade flag indicates whether the underlying trade or trade adjustment is current or from the previous trading day. |

| Window name | Org. | Short description of change |
|---|---|---|
| Give-Up Filter | Eurex/ EEX | To select all trades, the TrdTyp field is pre-filled with “*”. To select on-exchange trades a blank can be entered. Additional trade types are: "E" - EFP trade, "B" - OTC basis trade, "O" - OTC block trade, "V" - OTC vola trade.<br>To select trades within a TranId- range the optional fields TranIdFrom and TranIdTo can be used.<br>To select trades within a price range, the optional fields PriceFrom and PriceTo can be used. |
| Give-Up Maintenance | Eurex/ EEX | In the *Give-up Maintenance* window two new columns are implemented, displaying the following information:<br>• SuffixId - The suffix ID indicates the sequence number of a trade adjustment, in chronological order.<br>• HIT - The historical trade flag indicates whether the underlying trade or trade adjustment is current or from the previous trading day. |
| Take-Up Overview | Eurex/ EEX | The *Take-up Overview* window displays all give-up trades designated to the Exchange member and allows the Exchange member and his general clearing member to handle trades or transactions for take-up and take-up acceptance.<br>To specify a contract or a product as filter criteria the entry line at the top of the window can be used. This entry line is disabled while no filter is selected.<br>Within the *Take-up Overview* window two new columns are implemented displaying the following information:<br>• SuffixId - The suffix ID indicates the sequence number of a trade adjustment in chronological order.<br>• HIT - The historical trade flag indicates whether the underlying trade or trade adjustment is current or from the previous trading day. |

| Window name | Org. | Short description of change |
|---|---|---|
| Take-Up Filter | Eurex/ EEX | To select all trades, the TrdTyp field is pre-filled with “*”. To select on-exchange trades a blank can be entered. Additional trade types are: "E" - EFP trade, "B" - OTC basis trade, "O" - OTC block trade, "V" - OTC vola trade.<br>To select trades within a TranId range, the optional fields TranIdFrom and TranIdTo can be used.<br>To select trades within a price range, the optional fields PriceFrom and PriceTo can be used. |
| Take-Up Maintenance | Eurex/ EEX | In the *Take-up Maintenance* window, two new columns are implemented, displaying the following information:<br>• SuffixId - The suffix ID indicates the sequence number of a trade adjustment, in chronological order.<br>• HIT - The historical trade flag indicates whether the underlying trade or trade adjustment is current or from the previous trading day. |

### 4.2.3 Menu Item “Settlement“

| Window name | Org. | Short description of change |
|---|---|---|
| Exercise Overview | Eurex | The *Exercise Overview* window displays the Exchange member’s open long positions. Additionally, the exercise and exercise adjustment of open long positions are possible via this window.<br><br>In the *Exercise Overview* window, a new column (Aband Pos) displays the positions excluded from automatic exercise.<br><br>The new “Abandon” function is implemented with the same logic as shown for exercising. To avoid false data entry, the “Abandon” function is implemented as a tab pane. The front pane is the existing exercise part of the window and the back pane is the new “Abandon” function. On the “Abandon” tab there will be one entry field: *AbandonPartial*. In the AbandonPartial field the quantity of the selected positions which are to be excluded from automatic exercise is entered. To reduce the existing positions from exclusion a negative sign has to be entered before the number. If the field *All* is clicked all current open long positions of the selected rows are excluded. To prevent all future positions of a contract from automatic exercise, a maximum value or the high value has to be entered in the *AbandonPartial* field. If the *UnAbandonAll* field is clicked, all the excluded positions are re-included, i.e. the values will be set to zero.<br><br>With the “Abandon” button the action of exclusion is initiated. The “Clear” button blanks the entry field.<br><br>The quantity of excluded positions is independent of the current open long positions. There is no automatic adjustment of the quantity of excluded positions, and no validation according to the changes in the open long positions. |

| Window name | Org. | Short description of change |
|---|---|---|
| Automatic Exercise Parameter Maintenance | Eurex | **NEW:** The *Automatic Exercise Parameter Maintenance* window allows the user to enter, modify, delete and view minimum in-the-money amount limits for automatic exercise.<br><br>It enables members to define an individual minimum in-the-money amount per option product and per account either as an absolute quantity or as a percentage of the underlying price. If automatic exercise is not desired, the high value of 99,999.99 can be inserted.<br><br>In the last two columns, either the absolute minimum in-the-money amount (code A), the percentage of the underlying price (code P) or the high value (code A) is displayed. A multi-selection of one or more rows in the list box is possible. |
| Assignment Overview | Eurex | **NEW:** The *Assignment Overview* window displays the number of assigned contracts per options series per exchange member per account.<br><br>Positions displayed in the *Assignment Overview* list box are sorted by exchange member and contract as listed in the profile.<br><br>The *Sort* item on the *Window* menu allows the user to choose user defined sorting. |
| Allocation Overview | Eurex | **NEW:** The *Allocation Overview* window displays the ISIN, the name of the related underlying, the number of the assigned loans per bond futures contract and the settlement amount.<br><br>The *Allocation Overview* window is not accessible to non-clearing members.<br><br>Positions displayed in the *Allocation Overview* list box are sorted by clearing member, exchange member, contract (as listed in the profile), account and ISIN.<br><br>A user-defined sorting can be set with the menu item *Window – Sort*. |

| Window name | Org. | Short description of change |
|---|---|---|
| Futures Deliverable Position Overview | Eurex | **NEW:** The *Futures Deliverable Position Overview* window displays information about short, long, notified and pending give-up positions for bond futures that are at notification.<br>The *Futures Deliverable Position Overview* window is not accessible to non-clearing members.<br>The list box is sorted by Exchange member and contract, as listed in the profile.<br>A user-defined sorting can be set with the menu item *Window – Sort*. |

### 4.2.4 Menu Item "Collateral"

| Window name | Org. | Short description of change |
|---|---|---|
| Contract Cover Assignment Overview | Eurex | **NEW:** The *Contract Cover Assignment Overview* window displays short option positions and allows the clearing member to cover them.<br>The *Contract Cover Assignment Overview* window is not accessible to non-clearing members.<br>Positions displayed in the *Contract Cover Assignment Overview* listbox are sorted by clearing member, exchange member and contract as listed in the profile.<br>The *Sort* item on the *Window* menu allows the user to choose a user defined sorting. |
| Security Deposit Overview | Eurex | **NEW:** The *Security Deposit Overview* window displays the balances and movements of the collaterals in the security deposit account.<br>The *Security Deposit Overview* window is not accessible to non-clearing members.<br>The records in the *Security Deposit Overview* listbox are sorted by currency and ISIN.<br>The *Sort* item on the *Window* menu allows the user to choose a user defined sorting. |

| Window name | Org. | Short description of change |
|---|---|---|
| Security Deposit Detail Overview | Eurex | **NEW:** The *Security Deposit Detail Overview* window displays the detailed transactions of the security deposit for a single security.<br>The *Security Deposit Detail Overview* window is not accessible to non-clearing members.<br>Security transactions in the *Security Detail Overview* list box are sorted by transaction day and transaction number.<br>The *Sort* item on the *Window* menu allows the user to choose user defined sorting. |

### 4.2.5 Menu Item "Risk Management"

| Window name | Org. | Short description of change |
|---|---|---|
| Daily Margin Overview | Eurex, EEX | **NEW:** The *Daily Margin Overview* window displays the options premium margin, futures spread margin, additional margin, unadjusted margin and total margin requirements for an Exchange member.<br>Margin information sorted by Exchange member and currency is displayed in the *Daily Margin Overview* list box. |
| Margined Position Overview | Eurex, EEX | **NEW:** The *Margined Position Overview* window displays the net positions per contract for an Exchange member.<br>Net positions displayed in the *Margined Position Overview* listbox are sorted by exchange member, contract as per the selected profile and account type.<br>A user-defined sorting can be set with the menu item *Window – Sort*. |
| Guarantee Overview | Eurex, EEX | **NEW:** The *Guarantee Overview* window displays the clearing guarantees pledged by other members for the specific clearing member.<br>The *Guarantee Overview* window is not accessible to non-clearing members.<br>Guarantees displayed in the *Guarantee Overview* list box are sorted by the currency, guarantee type and guarantee number. |

| Window name | Org. | Short description of change |
|---|---|---|
| Daily Settlement Overview | Eurex, EEX | **NEW:** The *Daily Settlement Overview* window displays the margin requirements and the margin surplus or shortfall. The cash information displayed in this window is related to previous trading day, which includes the start of day cash balance, the daily cash movement and the end of day cash balance. In addition, the *Daily Settlement Overview* also displays pending withdrawal requests for cash and securities.<br>The *Daily Settlement Overview* window is not accessible to non-clearing members.<br>The daily settlement information is displayed and sorted by currency. |
| Excess Collateral Detail Overview | Eurex, EEX | **NEW:** The *Excess Collateral Detail Overview* window displays the estimated cover value (in a specific currency) that reflects the cash account balance, the evaluated collateral in the security deposit and the guarantee.<br>The *Excess Collateral Detail Overview* window is not accessible to non-clearing members.<br>The total collateral is the sum of the cash amount, the security amount and the guarantee for the displayed excess collateral. |

### 4.2.6 Menu Item "Cash"

| Window name | Org. | Short description of change |
|---|---|---|
| Premium / Variation Margin / Fee Overview | Eurex, EEX | **NEW:** The *Premium Variation Margin Fee Overview* window displays the premium, variation margin and fee movements per account for one clearing member – exchange member relationship and one currency.<br>The information displayed in the *Premium Variation Margin Fee Overview* window is sorted by exchange member, currency and account.<br>Exchange member or clearing member totals are calculated for all accounts. |

| Window name | Org. | Short description of change |
|---|---|---|
| Fee Adjustment Overview | Eurex, EEX | **NEW:** The *Fee Adjustment Overview* window displays the fee adjustments for one clearing member – exchange member relationship of the products in the selected profile.<br>The *Fee Adjustment Overview* list box is sorted by exchange member, product, account and fee type. |
| Fee Adjustment Filter | Eurex, EEX | **NEW:** The *Fee Adjustment Filter* window specifies the filter criteria for the data to be displayed in the *Fee Adjustment Overview* window.<br>The user can select a profile or product, and has to specify the clearing member and the exchange member. Optional are fee type and account. |
| Cash Account Detail Overview | Eurex, EEX | **NEW:** The *Cash Account Detail Overview* window displays the individual cash transactions on the cash account for the selected currency.<br>The *Cash Account Detail Overview* window is not accessible to non-clearing members.<br>Cash transactions displayed in the *Cash Account Detail Overview* list box are sorted by currency, transaction date and transaction ID. |
| Cash Withdrawal Request | Eurex, EEX | **NEW:** The *Cash Withdrawal Request* window displays the member's cash account. The clearing member can also define a minimum amount to be kept in the account.<br>The *Cash Withdrawal Request* window is not accessible to non-clearing members. |

### 4.2.7 Menu Item "Info"

| Window name | Org. | Short description of change |
|---|---|---|
| Ticker Board | Eurex | **NEW:** The *Ticker Board* window displays online trade price information for a specified contract or for contracts of a specified profile. The display is updated through broadcasts. |
| External Underlying Selection | Eurex | **NEW:** The *External Underlying Selection* window allows the user to select an external underlying security. |
| Product Statistics Overview | Eurex, EEX | Clearing GUI *Product Statistics Overview* window changes are identical to *Product Statistics Overview* of the enhanced @X-ceed trading GUI (see section 4.1.6). |

| Window name | Org. | Short description of change |
|---|---|---|
| Contract Statistics Overview | Eurex, EEX | Clearing GUI *Contract Statistics Overview* window changes are identical to *Contract Statistics Overview* of the enhanced @X-ceed trading GUI (see section 4.1.6). |
| Collateral Security Detail | Eurex, EEX | **NEW:** The *Collateral Security Detail* window displays accepted collateral of the clearing house and its market value as well as the amount recognized as cover value by the clearing house. |
| Deliverable Bonds Overview | Eurex | **NEW:** The *Deliverable Bonds Overview* window displays all deliverable bonds for the selected contracts, and the information necessary to calculate the conversion factors of these bonds. |
| Margin Parameter Overview | Eurex, EEX | **NEW:** The *Margin Parameter Overview* window displays risk-based margin parameters, which are subdivided into class parameters and product parameters. The margin group information is displayed for every applicable margin class.<br>The information is displayed in the *Margin Parameter Overview* list box, sorted by margin group and margin class. |
| Option Margin Parameter Overview | Eurex | **NEW:** The *Option Margin Parameter Overview* window displays options and futures margin parameters used for the calculation of the settlement prices using an option-pricing-model (Black-Scholes) and theoretical prices. |
| Exchange Rate Overview | Eurex, EEX | **NEW:** The *Exchange Rate Overview* window displays, for all currencies, the exchange rates, conversion factors and decimal shift used by the clearing house.<br>The *Exchange Rate Overview* window is not accessible to non-clearing members.<br>The exchange rates displayed in the list box are from the end of the previous business day. They are sorted by currency. |

### 4.2.8 Menu Item "Member"

| Window name | Org. | Short description of change |
|---|---|---|
| Member General Information | Eurex, EEX | **NEW:** The *Member General Information* window allows to inquire the member general information such as the member's address, collateral account information and give-up information.<br>The detail information like address and give-up information is grouped using tab panes. |
| Member Relationship Overview | Eurex, EEX | **NEW:** The *Member Relationship Overview* window displays for a non-clearing member, the clearing member he has a clearing agreement with, and, for a GCM, all relations to NCMs.<br>This window also allows the GCM to specify, per relationship, if give-up or take-up transactions are automatically accepted or not. |
| Report Selection | Eurex, EEX | **NEW:** The *Report Selection* window allows the user to select certain reports which are generated and sent to the member during end-of-day processing.<br>Some reports can be obtained in two different types: formatted or raw data. If raw data reports are not available, the *RawRpt* list box entry is empty.<br>Periodical reports can be requested by selecting one single report listed in the *Report Selection* list box, checking the *Standard* check box (for a formatted report), the *Raw Data* checkbox (for a raw data report, when appropriate) or both and then clicking the *Update* button. Daily and monthly reports are available.<br>Historical reports can be requested up to four business days before the current day by selecting one single report listed in the Report Selection listbox, checking the *Standard* checkbox (for a formatted report), the *Raw Data* checkbox (for a raw data report, when appropriate) or both, entering a date in the *Date* field and then clicking *Update*. The dates for which historical reports have been requested are only kept on the back-end.<br>The information is sorted by report ID. |

### 4.2.9 Menu Item “CSD“

| Window name | Org. | Short description of change |
|---|---|---|
| Clearer Security CSD Maintenance | Eurex, EEX | **NEW:** The *Clearer Security CSD Maintenance* window allows the clearing member to modify a CM defined security (ISIN)-CSD account relationship.<br>A list box is used to display the CM defined Security (ISIN)-CSD account relationship. All ISIN-CSD-relations of a clearing member are displayed in the listbox. In a first step the listbox is pre-filled with CM-ISIN-CSD relations that are automatically created from the Eurex System.<br>The clearing member has the possibility to enter special requests concerning the CSD account he wants to use for the settlement of a specific security. |
| Security CSD Overview | Eurex, EEX | **NEW:** The *Security CSD Overview* window allows clearing members to inquire, per security, the CSDs where they can be settled. |
| Clearer Account Maintenance | Eurex, EEX | **NEW:** A clearing member can have accounts at different CSDs. The accounts are either own accounts of the clearing member or custodian accounts. Clearing members inform Market Supervision about their CSD accounts or used custodian accounts. Market Supervision maintains the accounts related to a clearing member in the *Clearer Account Maintenance* window.<br>The order of the CSD accounts entered and displayed determine the priority of the CSDs used for automatic selection of default accounts per clearing member and security (see window *Clearer Security CSD Maintenance*).<br>Clearing members can only inquire the data. |
| Custodian Overview | Eurex, EEX | **NEW:** The *Custodian Overview* window allows clearing members to inquire the known custodians. |
| Custodian Maintenance | Eurex, EEX | **NEW:** The *Custodian Maintenance* window allows clearing members to inquire detailed information about custodians. |
| CSD Overview | Eurex, EEX | **NEW:** On the new window *CSD Overview* clearing members can inquire all CSDs to which Eurex has an interface. |
| CSD Maintenance | Eurex, EEX | **NEW:** On the new window *CSD Maintenance,* clearing members can inquire detailed information about the CSDs to which Eurex has an interface. |

### 4.2.10 Menu Item "Security"

| Window name | Org. | Short description of change |
|---|---|---|
| Trader Product Assignment Maintenance | Eurex, EEX | Clearing GUI security windows are identical to window of the enhanced @X-ceed trading GUI (see section 4.1.7). |
| Add Product To Subgroup | Eurex, EEX | Clearing GUI security windows are identical to window of the enhanced @X-ceed trading GUI (see section 4.1.7). |
| Copy Product Assignment | Eurex, EEX | Clearing GUI security windows are identical to window of the enhanced @X-ceed trading GUI (see section 4.1.7). |
| User Security Profile Maintenance | Eurex, EEX | Clearing GUI security windows are identical to window of the enhanced @X-ceed trading GUI (see section 4.1.7). |

## 4.3 New and Modified Reports for Trading and Clearing

| Report ID | Report Short Name | Org. | Short Description of Change |
|---|---|---|---|
| RPTCB010, RAWCB010 | POSITION DETAIL | Eurex, EEX | The column "fees" isdeleted. Four new columns are implemented:<br>Suffix ID, parent suffix ID, historical indication (HIT), adjustment/reverse indication (A/R) to indicate if an adjustment is either a reversal or an adjustment. Trades allowing further adjustments display an "N" in this column.<br>The *Position Detail* report is enhanced to include OTC vola trades. The column "TRD TYP" shows the code "V" in case of an OTC vola trade.<br>This report is also available as raw data. |
| RPTCB030 | POSITION TRANSFER OVERVIEW | Eurex, EEX | **NEW:** This report is a new report listing all position transfers of a member. It is available for all members. |
| RPTCB068 | TRANSACTION MIX REPORT | Eurex, EEX | **NEW:** This report is a new report showing details about member transaction behavior. The three parts of the report show the total transactions of the member, the transactions per member node and transaction details, sorted by trader. The report is available for all members. |

| Report ID | Report Short Name | Org. | Short Description of Change |
|---|---|---|---|
| RPTCB102, RAWCB102 | CASH SETTLED CONTRACTS | Eurex, EEX | This report shows the contracts that are settled in cash on the delivery day. The report also contains details of profits and losses produced by these contracts.<br>The suffix ID for trade adjustments is amended and renamed.<br>This report is also available as raw data. |
| RPTCB110 | ACCOUNT TRANSFER EXCEPTION | Eurex, EEX | This report shows the account and position transfers between the different accounts of an Exchange member. Trade transfers between accounts of the same kind (proprietary or market maker) will not be shown in the report, except for position transfers between M-accounts. Position transfers are separated into option series and future contracts for each Exchange member. The position movement is added up per account (proprietary, market maker and agent). For position transfers the following columns remain empty: "B/S", "O/C", "Price".<br>Two additional columns are implemented: Suffix ID and historical indication (HIT). |
| RPTCB115 | POSITION TRANSFER FOR EXPIRING EEX CONTRACTS | EEX | **NEW:** This report lists position transfers between contracts of different products belonging to a cascade due to contract expirations of a cascading product. The report is available for Market Supervision, NCMs and GCMs. |

| Report ID | Report Short Name | Org. | Short Description of Change |
|---|---|---|---|
| RPTCB130 | GIVE-UP TRADE HISTORY | Eurex, EEX | This report shows all give-up trades in chronological order.This report shows all pre-designated, designated and rejected give-up trades. Also give-up trades accepted by the recipient as take-up are listed. The report shows detailed information on a give-up trade history.<br>The column B/S and O/C will be reduced to a one character column. The transaction ID code will be named Tran ID. Four new columns are implemented:<br>Suffix ID, parent suffix ID, historical indication (HIT), adjustment/reverse indication (A/R) to indicate if an adjustment is either a reversal or an adjustment. Trades allowing further adjustments display an “N“ in this column.<br>The give-up trade history report is enhanced to include OTC vola trades. The column “TRD TYP” shows the code “V” in case of an OTC vola trade and vola trade details are displayed. |
| RPTCB140 | ACCEPTED GIVE-UP TRADES | Eurex/ EEX | This report contains all accepted give-up trades.<br>Two additional columns are implemented: Suffix ID and historical indication (HIT).<br>The accepted give-up trades report is enhanced to include OTC vola trades. The column “TRD TYP” shows the code “V” in case of an OTC vola trade and vola trade details are displayed. |
| RPTCB150 | TAKE-UP TRADE HISTORY | Eurex/ EEX | This report shows all take-up trades in chronological order.<br>The column B/S and O/C will be reduced to a one character column. Three new columns will be implemented: Suffix ID, parent suffix ID, historical indication (HIT).<br>The take-up trade history report is enhanced to include OTC vola trades. The column “TRD TYP” shows the code “V” in case of an OTC vola trade and vola trade details are displayed. |

| Report ID | Report Short Name | Org. | Short Description of Change |
|---|---|---|---|
| RPTCB160 | ACCEPTED TAKE-UP TRADE | Eurex/ EEX | This report shows all accepted take-up trades for the recipient.<br>Two additional columns will be implemented: Suffix ID, historical indication (HIT).<br>The accepted take-up trade report is enhanced to include OTC vola trades. The column “TRD TYP” shows the code “V” in case of an OTC vola trade and vola trade details are displayed. |
| RPTCC030 | THEORETICAL VALUES | Eurex/ EEX | An additional field ‘Forward-underlying price’ with the same format as the current underlying price is added.<br>For the purpose of a cross margin calculation a position splitting is performed. The report is modified to distinguish between contracts where there are crossed (overlapping) positions and contracts with non-crossed positions. |
| RPTCC042, RAWCC042 | LIQUIDATING VALUES FOR EEX PRODUCTS | EEX | For the purpose of a cross margin calculation a position splitting is performed. The report is modified to distinguish between contracts where there are crossed (overlapping) positions and contracts with non-crossed positions.<br>This report is also available as raw data. |
| RTPCC047 | ADDITIONAL MARGIN FOR EEX PRODUCTS | EEX | For the purpose of a cross margin calculation a position splitting is performed. In order to handle these modified positions correctly on the “Additional Margin EEX“ report it is modified to distinguish between contracts where there are crossed (overlapping) positions and contracts with non-crossed positions. |

| Report ID | Report Short Name | Org. | Short Description of Change |
|---|---|---|---|
| RPTCE010 | IN-THE-MONEY ADVISORY | Eurex | This report is used to inform members about the balance of in-the-money series in the last days before their expiration. The report contains data on the series about to expire and is arranged by clearing member, Exchange member, currency, account and product. It also gives the sum totals, by class and Eurex product as well as totals of the open positions and the total “in-the-money” amount.<br>The existing report is extended by the information concerning the positions excluded from automatic exercise. |
| RPTCE030 | MEMBER EXPIRATION | Eurex | This report shows the current balance of a series in the last days before expiration. The report is arranged by account and gives the details of a series about to expire. Also, it gives the total of open positions and the total in-the-money amount by class, Eurex product and by Exchange member.<br>The existing report is extended for the information concerning the positions excluded from automatic exercise. |
| RPTCE120 | PHYSICAL DELIVERIES OF EEX FUTURES | EEX | With the introduction of cascading expiration of EEX futures, this report just stays empty in case of cash settled monthly products |
| RPTTC540 | DAILY ORDER MAINTENANCE | Eurex | The EFP & basis trades are moved from the “Daily Order Maintenance Report” (RPTTC540) to the “OTC Block Trade Maintenance Report” (RPTTC545). The report is renamed to “OTC Trade Maintenance Report” and also contains the new OTC vola trades as described there. |

| Report ID | Report Short Name | Org. | Short Description of Change |
|---|---|---|---|
| RPTTC545 | OTC TRADE MAINTENANCE | Eurex/ EEX | This report is enhanced to contain EFP and basis trades as well as the new OTC vola trades. The column “TRAD TYP” shows the following codes:<br>• “B” = basis trades<br>• “O” = block trades<br>• “E” = EFP Trades<br>• “V” = vola trades |
| RPTTC810 | DAILY TRADE CONFIRMATIO N | Eurex/ EEX | The “Daily Trade Confirmation” report is enhanced to include OTC vola trades. The column “TRD TYP” shows the code “V” in case of an OTC vola trade. |
| RPTTD910 | TIME AND SALES SHEET | Eurex/ EEX | The “Time and Sales Sheet” is enhanced to include OTC vola trades. The column “TRD TYP” shows the code “V” in case of an OTC vola trade. |

# 5 Appendix A – Relation between FMS Screens and Windows

The following table contains a list of the former clearing screens. For each screen the related window is named.

| Screen ID | Screen Name | Window |
|---|---|---|
| 0000 | Main Menu | Main Menu |
| A000 | Member Security Coordinator Menu | n/a |
| A020 | Trader Product Assignment | Trader Product Assignment Mnt |
| A042 | User Setup Clearing Member | User Security Profile Mnt |
| A043 | User Setup Member Screens | User Security Profile Mnt |
| A044 | User Setup Trading Screens | User Security Profile Mnt |
| A045 | User Setup Trading Commands | User Security Profile Mnt |
| A046 | User Setup Futures Resources | User Security Profile Mnt |
| A047 | User Setup API / Trading API | User Security Profile Mnt |
| A048 | User Setup Clearing API | User Security Profile Mnt |
| B000 | Clearing Main Menu | n/a |
| C040 | Product Overview | Product Statistics Overview |
| C050 | Options Contract Overview | Contract Statistics Overview |
| C060 | Options Market Statistic | Contract Statistics Overview |
| C055 | Futures Contract Overview | Contract Statistics Overview |
| C065 | Futures Market Statistics | Contract Statistics Overview |
| D050 | News Board Inquiry/Select | Market Supervision Messages |
| D055 | News Board Display/Update | Market Supervision Messages |
| E020 | Settlement Prices | Settlement Price Overview |
| F000 | Positions Menu | n/a |
| F010 | Position Summary Inquiry | Position Overview |
| F020 | Position Detail Inquiry | Position Detail Overview |
| F030 | Fee Inquiry | Premium / Variation Margin / Fee Overview |
| F040 | Premium Inquiry | Premium / Variation Margin / Fee Overview |
| F050 | Clearing Instructions Selection | Position Detail Overview |
| F060 | Trade Separation | Trade Separation |
| F070 | Trade Open/Close Adjustment | Position Detail Maintenance |

| Screen ID | Screen Name | Window |
|---|---|---|
| F080 | Trade Account Transfer | Position Detail Maintenance |
| F100 | Historical Trade Transfer | Position Detail Overview |
| G000 | Daily Margin Menu | n/a |
| G010 | Daily Margin Inquiry | Daily Margin Overview |
| G020 | Margined Position Inquiry | Margined Position Overview |
| G025 | Variation Margin Inquiry | Premium / Variation Margin / Fee Overview |
| G030 | Margin Group Parameters | Margin Parameter Overview |
| G040 | General Margin Parameters | Margin Parameter Overview |
| G050 | Options Margin Parameters | Option Margin Parameter Overview |
| H000 | Exercise/Assignment Menu | n/a |
| H010 | In-The-Money Exercise/Inquiry | Exercise Overview |
| H020 | Exercise Entry/Maintenance | Exercise Overview |
| H025 | Notification Entry/Maintenance | Notification Overview |
| H030 | Exercise/Assignment Delivery Summary | Exercise Assignment Summary Overview |
| H035 | Notification/Allocation Summary | Notification Allocation Summary Overview |
| H038 | Futures Deliverable Position Inquiry | Futures Deliverable Position Overview |
| H040 | Exercise Inquiry | Exercise Overview |
| H050 | Assignment Inquiry | Assignment Overview |
| H055 | Allocation Inquiry | Allocation Overview |
| H060 | Pending Delivery Inquiry | Delivery Overview |
| H070 | Settlement Inquiry | Delivery Overview |
| I000 | Daily Settlement Inquiry | n/a |
| I010 | Cash Account Summary Inquiry | Daily Settlement Overview |
| I020 | Cash Account Detail Inquiry | Cash Account Detail Overview |
| I030 | Contract Cover Assignment Entry | Contract Cover Assignment Overview |
| I040 | Security Movement Inquiry | Security Deposit Overview |
| I050 | Guarantee Inquiry | Guarantee Overview |
| I060 | Security Summary Position Inquiry | Security Deposit Overview |
| I070 | Security Account Detail Inquiry | Security Deposit Detail Overview |

| Screen ID | Screen Name | Window |
|---|---|---|
| I080 | Security Valuation Inquiry | Security Deposit Detail Overview |
| I090 | Exchange Rate Inquiry | Exchange Rate Overview |
| I100 | Daily Settlement Inquiry | Daily Settlement Overview |
| I110 | Excess Collateral Inquiry | Excess Collateral Detail Overview |
| I120 | Cash Withdrawal Request | Cash Withdrawal Request |
| I140 | Cash Call Inquiry | Daily Settlement Overview |
| J000 | Member Maintenance Menu | n/a |
| J010 | Member Report Selection | Report Selection |
| J020 | Member Positions | Position Overview/Position Adjustment |
| K030 | Member Clearing General Information | Member General Information |
| K040 | Member Relationships | Member Relationship Overview |
| K051 | Maintain Security – Member Screen | Collateral Security Detail |
| K055 | Deliverable Bond Maintenance | Deliverable Bonds Overview |
| K060 | Transfer Member Positions | Position Transfer Overview |
| K080 | Fee Adjustments | Fee Adjustment Overview |
| N000 | Give-up Trades Main Menu | n/a |
| N010 | Give-up Review | Give-up Overview |
| N020 | Give-up Designation by Order | Give-up Maintenance |
| N030 | Give-up Designation by Transaction | Give-up Maintenance |
| N040 | Take-up Inquiry | Take-up Overview |
| N050 | Take-up Acceptance by Order | Take-up Maintenance |
| N060 | Take-up Acceptance by Transaction | Take-up Maintenance |

# 6 Appendix B – Eurex Functional Documentation

The new and updated documentation is available in a simulation version in September 2001. Final versions are distributed in November 2001.

| **Updated Eurex Documentation** | |
|---|---|
| **Document ID** | **Name of the Document** |
| X0004100 | Eurex User Manual Information Manual/System Overview/System Security |
| X0005700 | Eurex Front End Installation Guide |
| X0005900 | Eurex Front End Operations Guide |
| X0006100 | Eurex @X-tract Clearing User Guide |
| X0006101 | Eurex Report Reference Manual |
| X0006600 | Common MISS-Based Front End Technical Overview |
| X0006800 | Eurex Member Interface – File Interface Layouts |
| X0006900 | Eurex @X-ceed Trading User Guide |
| X0007100 | @Eurex User Reference Manual |

Note the following changes since the Eurex 5.0 Preliminary Release Notes were issued:

- The Eurex Financial Data Disseminator documentation is not available as external documentation any longer, therefore Eurex terminates the publication of the X0001200 “Eurex Financial Data Disseminator” and X0004300 “Financial Data Disseminator Interface Specifications” documents.
- The “EurexPTC User Documentation” (X0007000) is not available as a separate document any longer, since the software installation of EurexPTC is now included in the Eurex 5.0 standard software kit. The installation of EurexPTC is now included in the Eurex Front End Installation Guide, the EurexPTC ini-file setup is now included in the Eurex Front End Operations Guide and the use of EurexPTC is now described in the Trading and Clearing User Guides.
- All relevant @Eurex documentation is now summarized in a “@Eurex User Reference Manual”, which now contains all information needed to install, operate and use the new @Eurex connection alternative.
- All report descriptions formerly contained in the trading and clearing User Guides are now summarized in a new “Eurex Report Reference Manual”.

# 7 Appendix C – Glossary of Terms and Abbreviations

| Term | Resolution |
|---|---|
| @Eurex | Eurex Trading front end software for trading network access via common Internet access |
| @X-ceed | Name of the Java-based Eurex Trading front end application |
| @X-tract | Name of the Java-based Eurex Clearing front end application |
| API | **A**pplication **P**rogramming **I**nterface |
| A/R | **A**djust **/ R**everse (trade) |
| BESS | **B**ack-**E**nd **S**pecific **S**ubsystems are needed to access the exchange-specific back-end |
| CBF | **C**learstream **B**anking **F**rankfurt |
| CM | **C**learing **M**ember (general term for DCMs and GCMs) |
| CSD | **C**entral **S**ecurities **D**epository |
| DCM | **D**irect **C**learing **M**ember |
| DVP | **D**elivery **v**ersus **P**ayment |
| EEX | **E**uropean **E**nergy E**x**change |
| EFP | **E**xchange of **F**utures for **P**hysicals (commodities) |
| Eurex® | **Eur**opean **Ex**change is an electronic trading and clearing system designed to support futures and options. |
| FDD | **F**inancial **D**ata **D**issemination |
| FDP | **F**inancial **D**ata **P**roviders |
| FMS | **F**orms **M**anagement **S**ystem, VMS interface for terminal interactive applications |
| GATE | **G**eneric **A**ccess **T**o **E**xchange |
| GCM | **G**eneral **C**learing **M**ember |
| HIT | **Hi**storical **T**rade flag (not to be confused with HiTT) |
| HiTT | **Hi**storical **T**rade **T**ransfer |
| ID | **Id**entification |
| ISIN | **I**nternational **S**ecurity **I**dentification **N**umber |
| ITM | **I**n-**T**he-**M**oney |
| MISS | **M**ember **I**ntegration **S**ystem **S**erver |
| NCM | **N**on-**C**learing **M**ember |

| Term | Resolution |
|---|---|
| O/C | **O**pen **/ C**lose |
| OTC | **O**ver**-T**he**-C**ounter (trade type) |
| Qty | **Q**uanti**ty** |
| RPT | **R**e**p**or**t** |
| RVP | **R**eceipt **v**ersus **P**ayment |
| SIS | **S**ega**I**nter**S**ettle |
| UDP | **U**ser **D**atagram **P**rotocol is a communications method (protocol) between computers in a network that uses the Internet Protocol (IP). |
| VALUES | **V**irtual **A**ccess **L**ink **U**sing **E**xchange **S**ervices is an Exchange developed and supported API, enabling members to interface their own applications to the Exchange. |
| X-ceed | Name of the legacy non-Java-based Eurex trading front end application. |
| X-tract | Name of the Eurex 4.0 Java-based Eurex clearing front end application |