



# ***Eurex US Release 1.0***

## **Front End Installation Guide**

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# 1 Introduction

## 1.1 Purpose of this Guide

This guide is designed for the exchange member system administrator and provides information on the use of the Eurex US front end software installation and the Eurex US front end technical Xervice - XEUS (Exchange Service - Exchange Eurex US). In addition this document describes the Eurex US front end software packages for a MISS (Member Integration System Server) and WS (Workstation), including the trading application (@X-ceed) and VALUES API (Virtual Access Link Using Exchange Services Application Programmable Interface) on the supported OS platforms.

This guide provides detailed information on the Eurex US front end software installation kit, including a systematic walk through of the necessary planning, installation and verification procedures.

If one of the described procedures or instructions causes an exception or event which is not covered in this guide nor in the "Front End Installation Guide GATE 3.2", please contact the Eurex US Technical Help Desk.

For Eurex US:

Address:

Eurex U.S. Futures, L.L.C.

tbd.

Eurex US Technical Helpdesk

Phone: tbd

FAX: tbd

e-mail: tdd

## 1.2 Organization of this Guide

This guide contains the following chapters:

- **Chapter 1 – Introduction (this chapter)**

An introduction to the Eurex US front end software package for MISS and WS, with a description of the accompanying installation kit and general information (not platform specific) for planning the installation

- **Chapter 2 – Installing Front End Software on Sun Solaris**

Detailed instructions for the installation of the front end software for MISS and WS

- **Chapter 3 – Installing Front End Software on Windows**

Detailed instructions for the installation of the front end software for MISS and WS

- **Chapter 4 – Eurex US Configuration**

Detailed description of the Eurex US configuration procedure using the "Configuration Utility" tool on a MISS.

- **Chapter 5 – Verifying the Eurex US Installation**

Description of a basic verification of the Eurex US installation and configuration through the start-up of GATE and Eurex US technical architecture.

- **Appendices**

Reference material to assist during the installation:

- A "Installation Worksheet"
- B "Set-up of a Multi-Member MISS"
- C "Java License Agreement and Copyright Notice of SUN Microsystems"

## 1.3 Overview Eurex US Release 1.0

For a detailed description of the functions and features of the Eurex US trading application refer to the *Eurex US @X-ceed Trading User Guide 1.0*.

For a detailed description of the operation and technical features of the Eurex US front end, see the *Eurex US Front End Operations Guide 1.0*.

Eurex US is an electronic trading system, which addresses the most important requirements of the developments in international markets. The system implements the following software components:

- Client/server architecture with central hosts and the respective MISS and WS on the member site
- VALUES API as an open interface for third party applications and Eurex US applications

- Java based Graphical User Interface (GUI).

#### 1.4 Usage of Environment Numbers

This section explains the exchange specific environment numbers that are used on the front end system. Different numbers are assigned for the GATE and XEUS production and simulation environment.

Before proceeding with the installation, please check which environment numbers to use for the desired configuration.

The following environment numbers apply:

	GATE (XX)	XEUS (YY)
Production	90	40
Simulation	91	41

#### 1.5 Subscription of Third Party Private Broadcast Streams

Usually, a member MISS is only authorized to subscribe to private broadcast streams belonging to its own member. But clearing member MISSes, for instance, are authorized to subscribe to the recoverable private trade confirmation streams of their non-clearing members, depending on the clearing relationships.

It is possible to authorize a member or service provider to subscribe to one or more private broadcast streams of a different member. This authorization is done by Market Supervision, upon request. To receive these streams, the authorized member has to add them to his MISS broadcast subscription list (xeussublist.dat).

#### 1.6 Contents of Installation Kit

The installation kit for the Eurex US front end software package for MISS and WS contains all the Eurex US software components required to install Eurex US MISS(es) and/or Eurex US Workstations.

A set of readme files located in the top transfer directory level contain a short description of the installation procedures and the latest changes not contained within this guide:

Readme File	Subject
Readmer32.gate	GATE 3.2 Production
Readmer32s.gate	GATE 3.2 Simulation
Readmer10.xeus	Eurex US 1.0 Production

Readme File	Subject
Readmer10s.xeus	Eurex US 1.0 Simulation

Should the contents of this installation guide differ from the readme files, the information given in the readme files is more accurate and up to date.

The installation kit is delivered via FTP to the member MISS(es) defined as report nodes. Alternatively the Eurex US and GATE software kits can be downloaded from the website [www.eurexus.com](http://www.eurexus.com) using the "Member Section", "Software Kits" menu items.

### 1.7 Assumptions Used in this Guide

In the preparation for this guide, the following assumptions are made:

The exchange member has a system administrator available, who is familiar with the operating system and network software to be used, to perform the installation.

The exchange member's hardware and OS software is configured in accordance with the "Common Sizing Guidelines".

The current version of GATE is installed correctly on the exchange member MISSES and Workstations. This process is described in the "Front End Installation Guide GATE 3.2".

As the Eurex US Release 1.0 is the initial release, no update functionality is provided within the installation kit.

### 1.8 Other Eurex US Guides Available to Members

The following additional guides are available for the member's system administrator:

"Common Sizing Guidelines"

"Common Front End Technical Overview"

"Common Network Setup"

"Front End Operations Guide GATE 3.2"

"Front End Installation Guide GATE 3.2"

"Front End Operations Guide Eurex US 1.0"

### 1.9 Conventions used in this Guide

The following typographic conventions are used within this guide.

## Keyboard Input

<ENTER> Press the Enter or Return Key on the keyboard.

Ctrl+C> Press and hold the CTRL key on the keyboard then press the C key.



Type here exactly what is shown [RETURN]

## Screen Display



This shows the screen display for non-Windows applications.

Windows from GUI-applications are depicted through screenshots.

## Mouse Input



Click or Double Click means pressing the left mouse button (on a right hand mouse) once or twice.

[RIGHT] Click or [RIGHT] Double Click means pressing the right mouse button (on a right hand mouse) once or twice.

Example: Click on .

## Getting Attention



This paragraph is highlighted for special attention!

### 1.10 Exchange related Terms

The terms *exchange*, *trading system*, *trader account* and *trader group* within this technical guide are used in a generic, technical-oriented way, which does not take account of additional functional classifications as clearing and settlement.

### 1.11 Copyright Notice

The distributed Eurex US software has been created using the Java Development Kit (JDK) and the Java Runtime Environment (JRE) from SUN Microsystems. Please take note of the corresponding copyright notice and the terms of the license agreement, which are included in Appendix C of this document.

## 2 Installing Eurex US Front End Software on Sun Solaris

This chapter describes the installation of the front end software for the MISS and the WS on the Sun Solaris platform.

### 2.1 Overview

The Eurex US front end software installation kit contains all binary files, libraries and scripts necessary to install, configure and verify a MISS and Workstation in either simulation or production mode.

Before performing the installation, please check that the system is configured in accordance with the *Common Sizing Guidelines* document.

The screenshots in the following sections contain Member IDs, WAN names, etc. which are examples only.

#### 2.1.1 Software Requirements and Prerequisites

If the correct version of the operating system is not installed, the installation procedure terminates and the system is restored to its previous state.

#### **Important!**

The Eurex US front end software for a MISS or WS can only be installed if the GATE front end software is installed. The procedure for installing the GATE front end software is covered by the "Front End Installation Guide GATE 3.2".

Note: To ease the configuration of Eurex US 1.0 a valid A/C/E 1.1 configuration can be utilized; see chapter 4.1 *Conversion of the A/C/E Configuration File*.

#### 2.1.2 Planning the Installation

Answers to the various prompts from the installation procedure are provided here to ensure a successful installation of Eurex US front end software and cover general configuration parameters, usernames etc. To assist with the installation, the exchange provides a work sheet – for details see "Appendix A - Installation Worksheet".

Filling in this worksheet prior to the installation has several benefits:

- It conveniently summarizes all the information needed to successfully complete an installation.
- It documents the system.
- It helps the Eurex US Technical Helpdesk to resolve problems.

## 2.2 Start MISS and WS Installation Procedures

The installation procedures for MISS and WS are described below. Once the installation procedures are completed successfully, there is a Configuration Utility available to assist in the configuration of the desired MISSES and WSs (please see chapter 4 *Configuration*).

### Important!

The minimum configuration for the Eurex US front end software is a single MISS as a stand-alone system. If you intend to install Workstations, install the MISS software on the MISS first. If installing a secondary MISS for high availability configurations, install the secondary MISS before starting to install the WS software. The procedure for installing WS software is almost identical to the MISS installation procedure. The only differences are in the additional configuration settings, and certain MISS installation steps that are skipped by the WS installation procedure.

### Important!

Before starting to install Eurex US front end software:

login as **root** user, otherwise the installation aborts,

make sure that the GATE administration user **gateadm** is **not** logged into the system,

make sure that processes with **owner gateadm** are **not** running,

back up the system.

### Attention!

Please make sure that no exchange software component (e.g. GATE) is running during the installation.

### 2.2.1 Step 1 - Login as Root (MISS and WS)

At the login prompt:

 su – root

At the password prompt:

 Type the password for the user “root”

## 2.2.2 Step 2a - Access the Installation Source (MISS only)

All necessary files for the installation are transferred via FTP. The first step in preparing for the new installation is to save the newly received installation kit files in a safe directory location. This directory location should be easily accessible from all MISSes and Workstations.

## 2.2.3 Step 2b - Access the Installation Source (WS only)

On the WS, mount the directory from the MISS where the installation files are located, if this is not done automatically. Alternatively, the files can be copied in binary format, not ASCII, via FTP.

## 2.2.4 Step 3 - Start the Installation Procedure (MISS and WS)

Change to the installation directory where the files are copied. Type one of the following commands:

 ./instxeusr10.sun (for production)

./instxeusr10s.sun (for simulation)

The installation program now asks for specific information to configure the system, it then creates the necessary directory structure on the machine and copies all necessary binary files, configuration files and library files to the disk.

The following messages appear on the screen:

```
# ./instxeusr10.sun
The following Version of GATE is installed on this System
and will be used for XEUSR10 :

application GateR32 GATE Rel.3.2 Generic Access To Exchanges (Env. 90)

installing on supported Solaris Hardware Revision 02/02

Adding package XEUSR10 in installation mode

Continue installation? [y] [y,n,?] y
pkgadd -d ./xeusr10.sun XEUSR10

Processing package instance <XEUSR10> from </tmp/xeusr10.sun>
```



The Eurex US software will be installed in the following subdirectory

/opt/gate/base90/XEUS/... (for production)

/opt/gate/base91/XEUS/... (for simulation)

### 2.2.5 Step 4 - Interrupting the Installation (MISS and WS)



During the installation procedure, typing <q> as an answer forces the installation to quit. However, some system changes may persist, e.g. users created during installation are not removed.

### 2.2.6 Step 5 - Accept License Agreement (MISS and WS)

Eurex US Rel.1.0 (Env. 40)

(sparc) 1.0.0.0

.....  
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by Installing the software you accept the License Agreement stated above.

.....

Press <ENTER> to continue or <q> to quit installation:



Press <ENTER> to start installation, <q> to quit.

### 2.2.7 Step 6 - Check that CDE is installed (MISS and WS)

Check if SUNWdtcor is already installed!  
SUNWdtcor is already installed as required!

Check if SUNWdtbas is already installed!  
SUNWdtbas is already installed as required!

Check if SUNWdtdte is already installed!  
SUNWdtdte is already installed as required!

Check if SUNWdtdst is already installed!  
SUNWdtdst is already installed as required!

### 2.2.8 Step 7 - Confirm Installation (MISS and WS)

You are about to begin installation of the XEUS Front End.  
The installation procedure will guide you through the following steps:

Enter information about the environment in which the  
XEUS Front End will be running.

A summary of all the information you have provided will be  
displayed for your confirmation.

After your confirmation, the actual installation of the  
XEUS Front End will take place.

Choosing the quit (q) option at any time will abort the installation  
procedure.

Choosing the help (?) option will display extra information.

Press <ENTER> to continue or <q> to quit installation:



Press <ENTER> to start installation, <q> to quit.

Press <?> to get help information.

### 2.2.9 Step 8 - Create a Front End Trader Account (MISS and WS)

The installation procedure sets up a new user account for testing purposes (default: XEUSTrd). The installation procedure checks for the existence of this user and creates it, if it does not exist.

User and group section.

=====

Enter the user name of the XEUS trader on this system.

(default: XEUSTrd) [?,q]

Press <ENTER> to accept the default, or type another name or <q> to quit.

Enter the user id for the trader account XEUSTrd (default 2411):

Press <ENTER> to accept the default or type a new User ID and <ENTER> or <q> to quit.

Try to create [XEUSTrd] on local system!

User created - please set password for XEUSTrd!

The minimum length of the password is 5 characters!

New password:

Type the new password (minimum 5 characters, alphanumeric, case-sensitive) and <ENTER>.

Re-enter new password:

passwd (SYSTEM): passwd successfully changed for XEUSTrd

Retype the new password and press <ENTER>.

### 2.2.10 Step 9 - Create Special FTP Group (MISS only)

The exchange requires a special user group (xeusft) for the FTP user. The FTP user (eusnet40 or eusnet41) must belong to this group. The installation procedure checks for the existence of this group and creates it, if it does not exist.

```
Enter group id for xeusft (default: 640) [?,q]
```

```
Group xeusft entry added !
```

Press <ENTER> to accept the default, type the groupID and <ENTER> or press <q> to quit.

### 2.2.11 Step 10 - Create FTP Account (MISS only)

The name of the FTP user for reports and file transfers from the exchange is fixed as follows:

eusnet40 for production

eusnet41 for simulation.

The exchange provides the password for these users.

```
Enter the user id for the file transfer account eusnet40 (default 2140):
```

```
Try to create [eusnet40] on local system!
```

Press <ENTER> to accept the default or type user-ID and <ENTER> to assign or <q> to quit.

```
User created - please set password for eusnet40!
```

```
The password was provided to you by the exchange!
```

```
New password:
```

Type in the new password provided by the exchange, and <ENTER>.

```
New password:
```

```
Re-enter new password:
```

```
passwd (SYSTEM): passwd successfully changed for eusnet40
```

```
User gateadm added to group xeusft
```

Retype the new password and press <ENTER>.

### 2.2.12 Step 11– Reuse of Existing Configuration Files (secondary MISS and WS)

If installing a secondary MISS or a WS, existing configuration files are used from the primary MISS. Copy the files XEUSmbr.ini and xeussublist.dat to a temporary directory on the secondary MISS or WS. The system prompts for the path of these files.

Please enter the full qualified name of the copied XEUSmbr.ini-File:

Type the full path and filename of XEUSmbr.ini copied from the primary MISS and press <ENTER>.

Please enter the fully qualified name of the copied “xeussublist.dat” File: (alternate MISS only)

Type the full path and filename of the xeussublist.dat file and press <ENTER>.

### 2.2.13 Step 12 - Confirm Configuration (MISS and WS)

The following choices were made so far during the installation of the XEUS Front End. This information will be saved in the file >/opt/gate/base90/XEUS/.XEUSR10.cfg< for your convenience.

You are about to install: XEUSR10!

Base-Directory: [/opt/gate/base90/XEUS]

The XEUS Trader: [XEUSTrd]

The XEUS filetransfer Group name: [xeusft] (MISS only)

The XEUS filetransfer Account: [eusnet40] (MISS only)

The name/address of this system: [miss1] as primary MISS Installat. (this entry differs for a secondary MISS or a Workstation installation))

Installation of the XEUS Front End will now be performed based on the information you have provided. If you are not satisfied with the choices you have just made, rerun the installation script.

Press <ENTER> to continue or <q> to quit installation:



Press <ENTER> to start installation, <q> to quit.

```
Working, please wait...
```

```
Using </opt/gate> as the package base directory.
```

```
## Processing package information.
```

```
## Processing system information.
```

```
    2 package pathnames are already properly installed.
```

```
## Verifying package dependencies.
```

```
## Verifying disk space requirements.
```

#### 2.2.14 Step 13 – Installation (MISS and WS)

```
Installing Eurex US Rel.1.0 (Env. 40) as <XEUSR10>
```

```
## Executing preinstall script.
```

```
## Installing part 1 of 1.
```

Now a list of all copied files is displayed.

```
[ verifying class <none> ]
```

```
## Executing preinstall script.
```

```
## Installing part 1 of 1.
```

```
/opt/gate/base90/XEUS/GUI/bin/atX-ceed
```

```
....
```

```
/usr/dt/appconfig/icons/C/Dtxeus_app.m.pm
```

```
[ verifying class <none> ]
```

```
## Executing postinstall script.
```

```
Directory /usr/dt/appconfig/appmanager/C/Gate_Production exists
```

```
Copying XEUS CDE files...
```

```
Creating StartXeusTradingR10.dt OK!
```

```
Move XEUS Action files...
```

```
inflating Java Runtime ...
```

Installation of <XEUSR10> was successful.

If all the actions complete successfully, the installation of the Eurex US front end software on the respective MISS or WS is finished.

If, for any reason, the required activities do not successfully complete, the procedure terminates and rolls back all changes made to the system except for the created user and group accounts.

### 2.3 Environment Variables

The following environment variables are changed during the SUN Solaris installation. They are set during startup of the terminal window, e.g. by clicking on an icon.

Environment Variable	Description
LD_LIBRARY_PATH	System environment variable, points to VALUES API modules
PATH	System environment variable, points to the executables

### 2.4 Removing Front End Software from the System

To remove the Eurex US front end software from the system, use the *pkgrm* command. At the command prompt, type one of the following lines:

*pkgrm XEUSR10* (for production)

*pkgrm XEUSR10S* (for simulation)

All files and directories created by the *pkgadd* command will be deleted.

#### Important!

A backup of all Eurex US report directories located in */opt/gate/transferdir* should be performed prior to removing the Eurex US Front End software.

Note: No groups or users are deleted by the *pkgrm* command. The *libxeususim.so*, *XEUSmbr.ini* and *xeussublist.dat* files are saved in the */var/XEUS* directory

## 3 Installing Eurex US Front End Software on Windows

### 3.1 Overview

The Eurex US front end software installation kit contains all binary files, libraries and scripts necessary to install, configure and verify a MISS an Workstation installation in either simulation or production mode.

Before performing the installation, please check that the system is configured in accordance with the “Common Sizing Guidelines”.



The screenshots in the following sections contain Member IDs, WAN names, etc. that are examples only.

#### 3.1.1 Software Requirements and Prerequisites



If the correct version of the operating system is not installed, the installation procedure terminates and the system is restored to its previous state.



#### **Important!**

The Eurex US front end software for a MISS or WS can only be installed if the GATE front end software is installed. The procedure for installing GATE front end software for a MISS is covered in the “Front End Installation Guide GATE”.

#### 3.1.2 Planning the Installation

Responses to the various prompts from the installation procedure are provided here to ensure a successful installation of the Eurex US front end software. They cover mostly general configuration parameters, network addresses etc. To assist with the installation, the exchange provides a work sheet - see “Appendix A - Installation Worksheet”.

Filling in this work sheet has several purposes:

It conveniently summarizes all the information needed to successfully complete an installation.

It documents the system.

It helps the Eurex US Technical Helpdesk to resolve any problems.

### 3.2 MISS and WS Installation Procedure

If the procedures in chapter 3.1 are completed, the MISS installation procedure can be started.

**Important!**

The minimum configuration for the Eurex US front end software is one MISS as a stand-alone system. If also installing WS software on Workstations, install the MISS software on the MISS first. If installing a secondary MISS for high availability configurations, install the secondary MISS before starting to install the WS software. The procedure for installing WS software is almost identical to the MISS installation procedure. The only differences are in the Configuration Utility settings, and certain MISS installation steps that are skipped by the WS installation procedure.

**Important!**

Before starting to install the Eurex US front end software, log in either as Administrator, or as a user who is a member of the group Administrators, otherwise the installation is aborted.

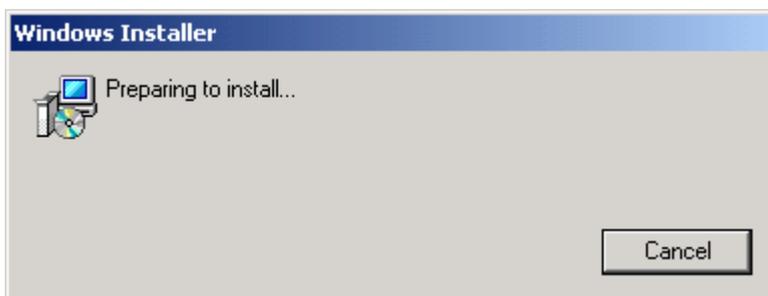
**3.2.1 Step 1 - Login as Administrator**

To install the Eurex US front end software for MISS, have local administrator privileges or the set-up program does not run.

Start Windows, if necessary, and move to the directory where the Eurex US front end software installation kit is located: *C:\INETPUB\FTPROOT\RELEASEXXWIN\* (XX=40 for production, 41 for simulation). Start the *XeusR10.msi* program (*XeusR10S.msi* for Simulation).

**3.2.2 Step 2 - Access the Installation Source**

After starting the *XeusR10.msi* (*XeusR10S.msi* for simulation) installation executable, the following window will be displayed:



Click on <Cancel> to quit.

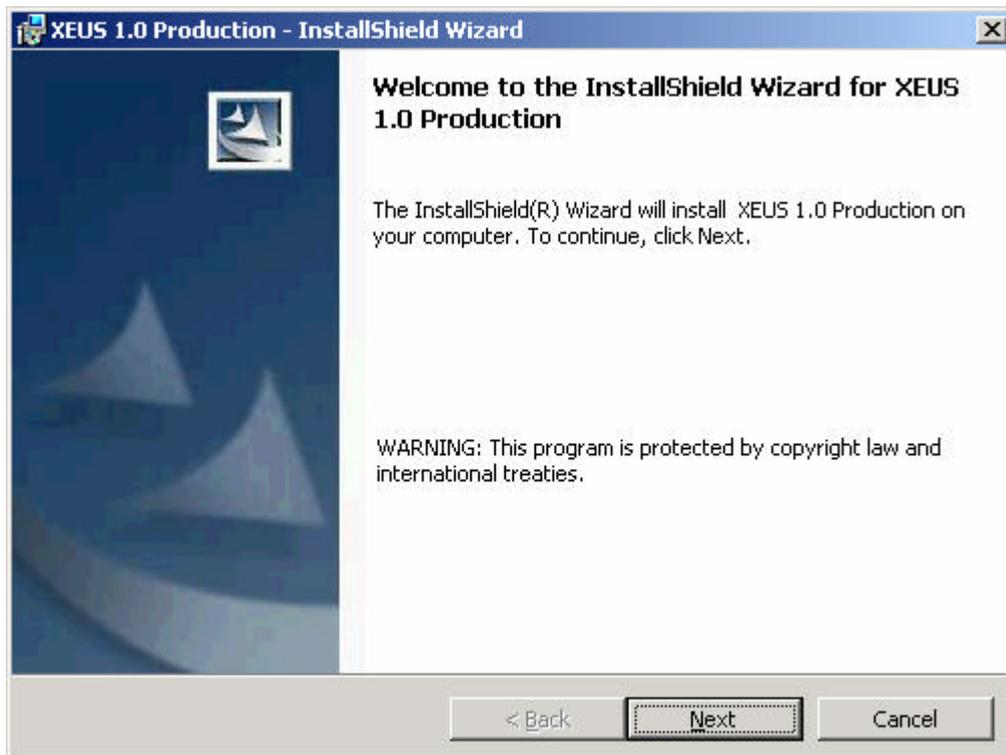
First the availability of the Gate 3.2 software is checked. If an older GATE version or no GATE version at all is detected, the following error message is displayed:



Click on <OK> and abort the installation. Then install the Gate 3.2 software as described in the *Front End Installation Guide GATE 3.2*.

Once the Gate 3.2 software is installed and verified, proceed with step 3.

### 3.2.3 Step 3 - Welcome Window



Click on <Next> to continue.

Click on <Cancel> to quit.

### 3.2.4 Step 4 - Accept License Agreement

The installation program then displays the following copyright notice and asks for acceptance of the copyright before continuing.



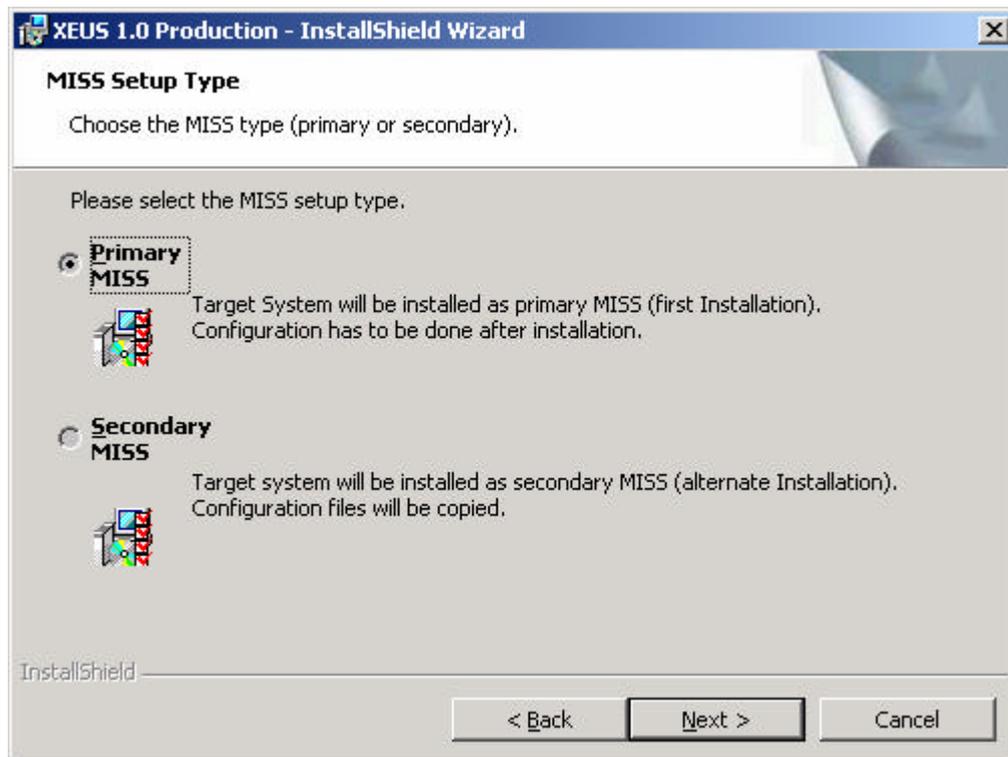
Click on <Back> to return to the previous window.

Click on <Next> to continue. Please note that the <Next> button is inactive until the "I accept..." checkbox is marked.

Click on <Cancel> to quit.

### 3.2.5 Step 5 – Selecting MISS Installation Type (MISS only)

If Gate 3.2 has been installed as a MISS, the following window is displayed:

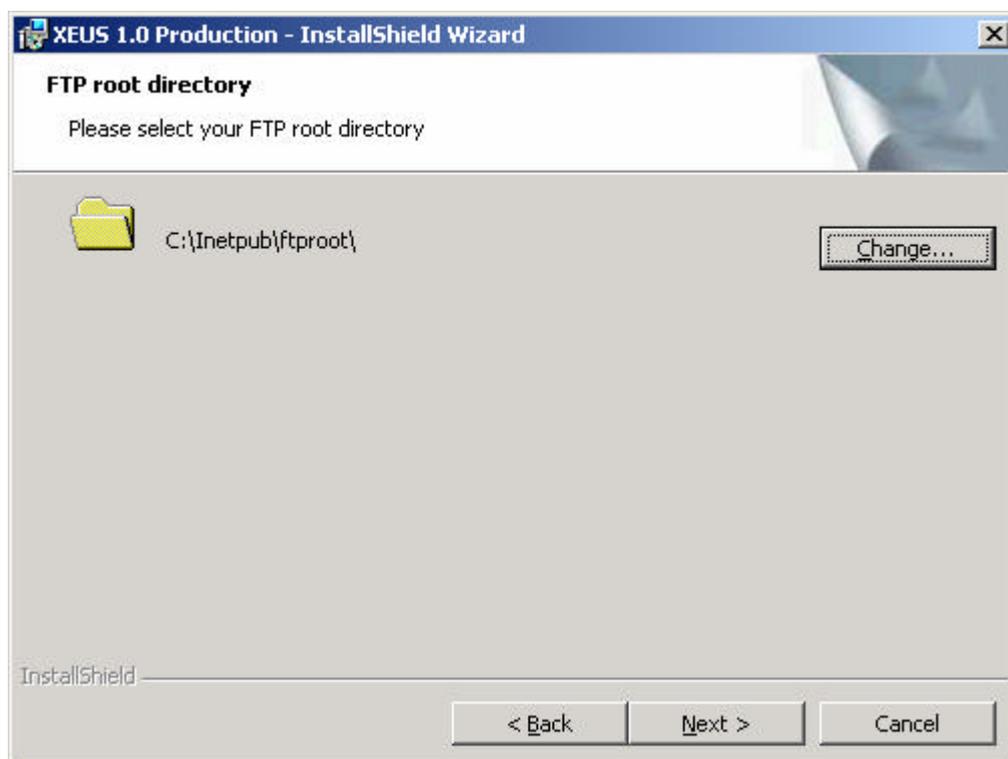


For a Workstation installation, the procedure asks for the location of the XEUSmbr.ini file. When installing a secondary MISS, the procedure asks for the location of the XEUSmbr.ini and the xeussublist.dat file.

If a MISS is to be installed, continue with step 6a.

If a WS is to be installed, continue with step 6b.

### 3.2.6 Step 6a – FTP Root Directory Selection (MISS only)



Select the local FTP root directory of the ftp server.

Click <Change>, Browse for the FTP root directory, then click <OK> to return to the parent window.

Click on <Back> to return to the previous window.

Click on <Next> to continue.

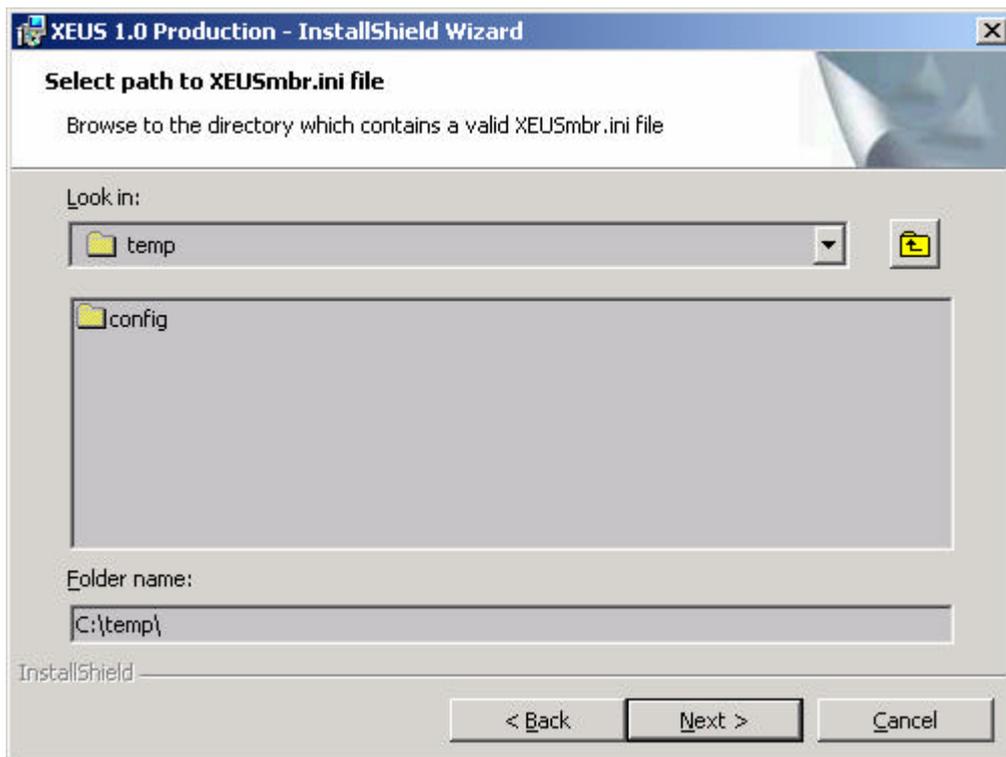
Click on <Cancel> to quit.

If a primary MISS is installed, the installation continues with step 7.

If an alternate (secondary) MISS or a WS is installed, the installation continues with step 6b.

### 3.2.7 Step 6b - Reuse Configuration Files (secondary MISS or WS)

If you already have a valid XEUSmbr.ini configuration file from the Eurex US 1.0 primary MISS installation, reuse this file by selecting the path to the corresponding ".INI" file:



Enter the path where the above file from the primary MISS are located.

Click on <Back> to return to the previous window.

Click on <Next> to continue.

Click on <Cancel> to quit.

**Important!**

Only Eurex US 1.0 configuration files can be used. Reusing A/C/E 1.1 configuration files for a Eurex US 1.0 installation will not work. For a conversion of the A/C/E configuration file CBOTmbr.ini, please see chapter 4.1 *Conversion of the A/C/E Configuration File* instead

To install an alternate MISS, the saved configuration files (“INI” files) of the primary MISS are used. A dialog is shown later to enter the path of the directory where the following files from the primary MISS are found:

XEUSmbr.ini (Eurex US configuration file) (mandatory!)

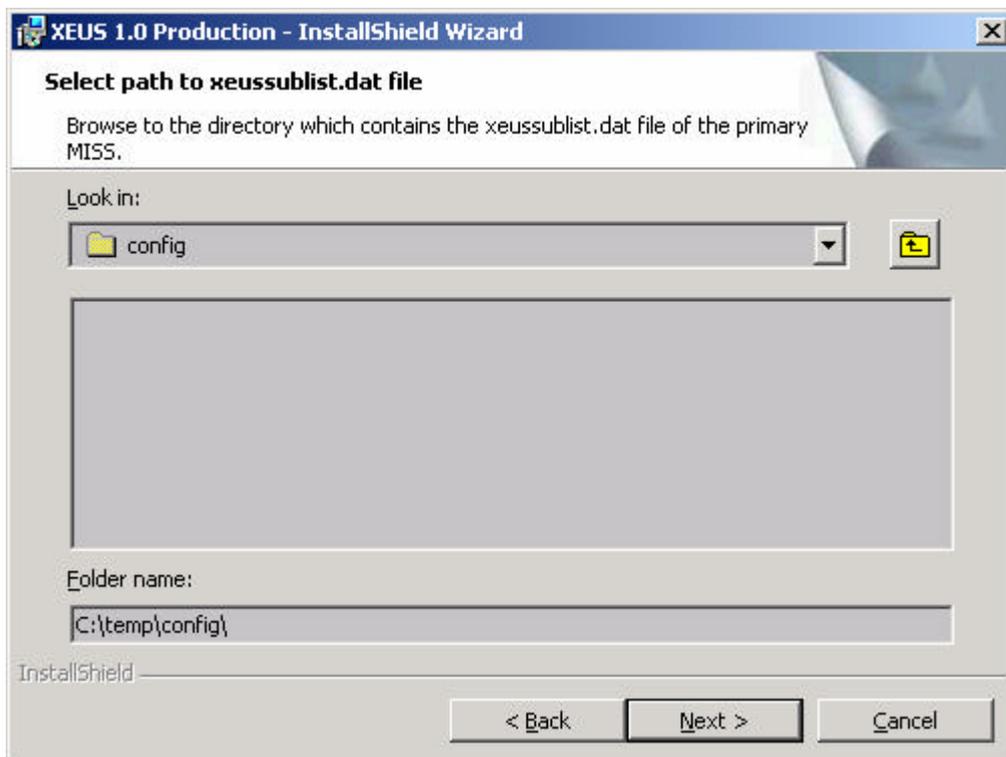
xeussublist.dat (broadcast subscription table file, alternate MISS only)

If an alternate (secondary) MISS is installed, the installation continues with step 6c.

If a WS is installed, the installation continues with step 7.

### 3.2.8 Step 6c - Reuse Broadcast Configuration Files (secondary MISS only)

If you already have broadcast configuration files (the xeussublist.dat) from the installation of an associated primary Eurex US 1.0 MISS installation, reuse these files by selecting the path to the corresponding “.dat” files:



Enter the path where the above files from the primary MISS are located.

Click on <Back> to return to the previous window.

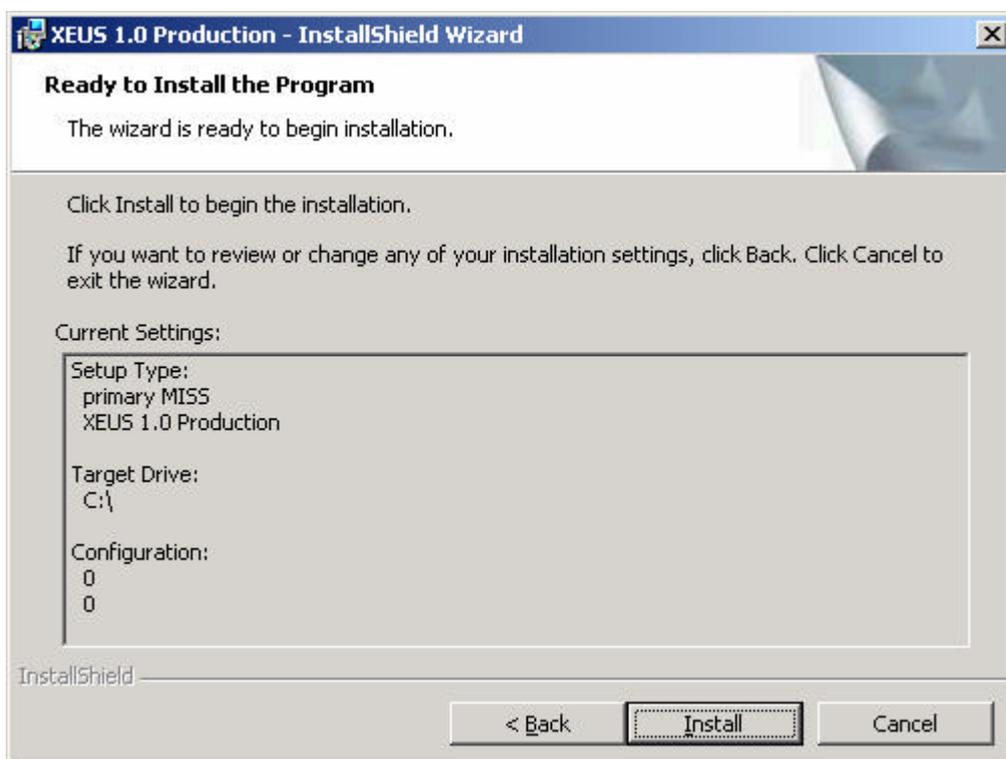
Click on <Next> to continue.

Click on <Cancel> to quit.

### 3.2.9 Step 7 - Confirm Settings

The installation routine now asks to confirm or modify the entered settings.

Please check the settings before continuing.



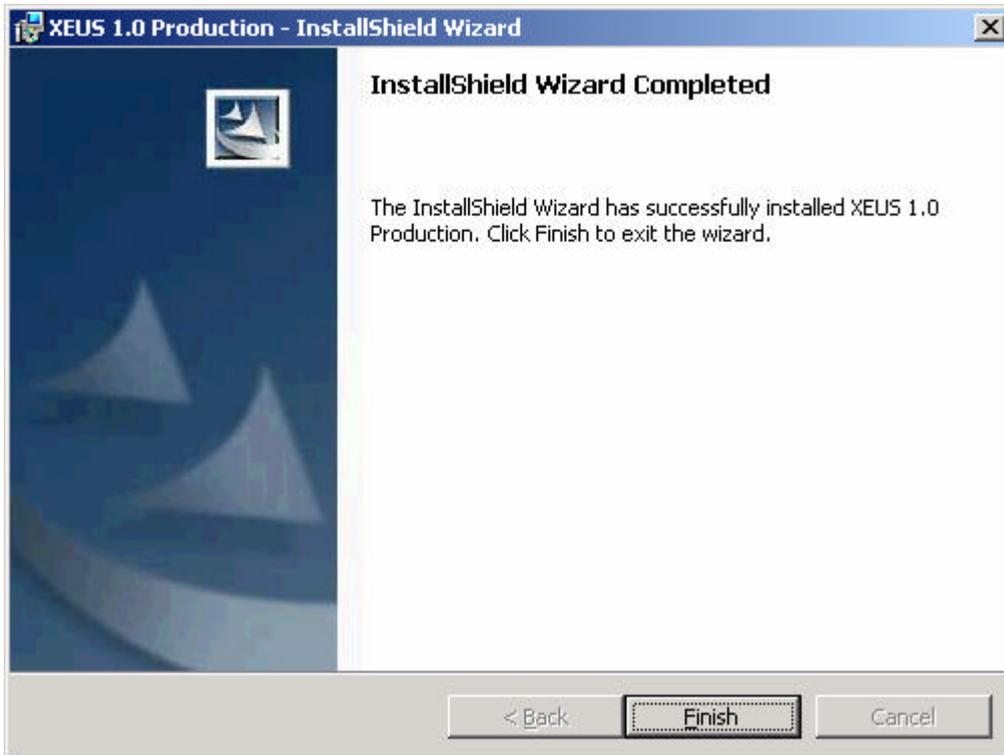
Click on <Back> to return to the previous window.

Click on <Install> to continue.

Click on <Cancel> to quit.

The Eurex US front end software is now being installed on the MISS/WS.

### 3.2.10 Step 8 - Finishing the Installation



The setup process has now completed all of necessary tasks.

Click on <Finish> to complete the setup.

### 3.3 Eurex US User and Group Accounts on Windows

Contrary to the SUN Solaris platform, the user and group accounts on the Windows platform have to be created manually. Please make sure that prior to the Eurex US account setup the GATE account setup has been completed – for details see *GATE Front End Installation Guide 3.2*. Eurex US requires a group for file-transfer users (default: "xeusft"), the file-transfer user accounts "eusnet40" (production environment), "eusnet41" (simulation environment), and at least one trader user (default: XEUSTrd). The "eusnet40" and "eusnet41" accounts must be members of the "xeusft" group. The "XEUSTrd" account must be member of the "gatetrd" group. Other users, as required, must be members of the group "gatetrd".

If a trader user is also required to be able to trade on the MISS, this user must be also part of the "gategrp" group.

Note: Every user within the gategrp group can start or stop the GATE architecture and all exchange Services!

### 3.3.1 Creation of User and Group Accounts

Before attempting to use or verify the Eurex US front end at least the following users and groups must be created manually:

- group "xeusft"
- accounts "eusnet40", "eusnet41", "XEUSTrd"

The procedure for the creation of users and groups on a MISS within an Active Directory and on a standalone MISS may differ slightly. Please consult the operating system documentation for further information.

#### Important!

The passwords for the file-transfer users (**eusnet40**, **eusnet41**) are provided by Deutsche Börse!

User names and passwords of other users must be a minimum of **5 characters** in length, otherwise the login to Eurex US is not possible.

### 3.3.2 User Rights Assignments

Irrespective of the Windows network identification settings (i.e. domain/active directory or workgroup member) the following user rights need to be assigned:

User/group	Rights Assignment
xeusft	log on locally
eusnet40/eusnet41	log on locally
XEUSTrd	log on locally

When using the Windows Active Directory it has to be taken into account, that a more complex 3 stage Security Policy Concept (Local Security Policy, Domain Security Policy and Domain Controller Security Policy) is being used. It is not sufficient to set the "act as part of the operating System" for gateadm and the "log on locally" for the FTP accounts at the Local Security Policy level. These privileges must be set at the highest security level otherwise they may be overridden by the Domain / Domain Controller Settings.

### 3.4 Performing an unattended installation

In order to perform an unattended installation of a secondary MISS or a Workstation on Windows the following command should be executed from the command prompt:

```
C:\ msiexec /i XeusR10.msi[PATH_TO_MBR_INI =<Path to XEUSmbr..ini>]
[PATH_TO_SUBLIST=<Path to xeussublist.dat>] /qn
```

The description of the parameters is as follows:

Entry	Explanation
PATH_TO_MBR_INI	The directory where the XEUSmbr.ini file can be found.
PATH_TO_SUBLIST	The directory where the xeussublist.dat file can be found. (MISS only)

E.g., the command:

```
msiexec /i XeusR10.msiPATH_TO_MBR_INI=c:\temp PATH_TO_SUBLIST=c:\temp /qn
```

installs Eurex US on drive C using the XEUSmbr.ini file and the xeussublist.dat file located in the directory C:\Temp .

Starting the msiexec command with the additional flags /qn prevents GUI interaction during the installation.

### 3.5 Removing Front End Software from the System

To remove the Eurex US front end software from the system, proceed as follows:

- Click *Start ® Settings ® Control Panel*
- Click *Add/Remove Programs*
- Highlight the application to remove.
- Click the *Remove* Button.



The Add/Remove program only removes from the system those files created by Setup. All other files and directories must be deleted manually (e.g. \*.ini files, log files etc.).

## 4 Configuration

### 4.1 Conversion of the A/C/E Configuration File

An existing installation of A/C/E 1.1 for the same GATE environment (production or simulation) can be used to ease the configuration of Eurex US 1.0. Therefore a conversion utility has been provided within the Eurex US 1.0 installation kit, called *convACEToXEUSconfig.pl*. The prerequisites to use the conversion utility are a completely configured A/C/E 1.1 installation and an initial Eurex US 1.0 installation with no XEUSmbr.ini file yet present. The usage of the conversion utility is as follows:

SUN



```
>cd /opt/gate/baseXX/bin  
>../XEUS/bin/convACEToXEUSconfig.pl  
XX: 90 for production, 91 for simulation
```

Windows



```
>cd <gate_drive>\opt\gate\baseXX\bin  
> ..\XEUS\bin\convACEToXEUSconfig.pl  
XX: 90 for production, 91 for simulation
```

With the execution of the conversion utility *convACEToXEUSconfig.pl* a XEUSmbr.ini containing the CBOTmbr.ini configuration parameters of the parallel A/C/E 1.1 installation will be created.

However, the values for the fields *MissGroupld* and *Memberld* as well as the broadcast subscription settings from the sublist file are not converted and have to be explicitly set for the XEUS configuration – either manually or via the Configuration Utility (see following chapter).

### 4.2 Start Configuration Utility

To support the configuration, use the configuration worksheet in Appendix A.

The Configuration Utility can be started via the Xmenu by selecting the item Configuration Utility or platform specific as described below:

## SUN



```
>cd /opt/gate/baseXX/bin
```

```
>./configMenu.pl
```

XX: 90 for production, 91 for simulation

## Windows



From the Start Menu choose Programs/GATE Production (GATE Simulation)

Click on the Configuration Utility icon.

or:



```
Type C:\opt\gate\baseXXbin\configMenu.pl <RETURN>
```

XX: 90 for production, 91 for simulation

or:



Choose the directory C:\opt\gate\baseXXbin\ and double-click the file configMenu.pl.

### 4.3 Required Minimum Configuration

The most important point of the Configuration Utility, after a new installation, is the menu option *Required Minimum Configuration* in the main menu.



Prior to performing the *Required Minimum Configuration* for Eurex US it is necessary to have completed the GATE installation and configuration. For information how to perform the GATE *Required Minimum Configuration* please consult the *GATE Front End Installation Guide*.

Please follow the instructions on the following screens. The configuration is done step by step.

After the Configuration Utility started, the following menu is displayed:

```
***** Configuration Utility *****

      Configuration Menu

1  MISS/WS Architecture Configuration
2  Multicast Configuration
3  GATE Configuration
4  XEUS Configuration
5  Required Minimum Configuration

0  Return
```

Select menu item <5> Required Minimum Configuration.

```
***** Configuration Utility *****

      Required Minimum Configuration

1          XEUS Miss Configuration
2          XEUS Member Id
3          XEUS MISS Group Id

0  Return
```

Select menu item <1> XEUS Miss Configuration.

```
***** Configuration Utility *****

      MISS/WS Architecture Configuration

1  Add a MISS
2  Add a WS
3  Change / Show MISS
4  Change / Show WS
5  Remove a MISS
6  Remove a WS

0  Return
```

Select menu item <3> Change / Show MISS.

```
***** Configuration Utility *****

Change / Show MISS

1  MISS1 (1234)
2  MISS2 (1235)

0  Return
```

Select the MISS you want to configure for the use with the XEUS Xervice.

```
***** Configuration Utility *****

Change MISS MISS1 (1234)

1  MISS LAN name_____ [MISS1]
2  MISS device ID_____ [1234]
3  Primary MISS position_____ [1]
4  Republisher in LAN_____ [Y]
5  Security MISS_____ [Y]
6  XEUS MISS

0  Return
```

Select menu item <6> XEUS.

```
***** Configuration Utility *****

XEUS MISS

1  XEUS MISS_____ [Y]
2  XEUS WAN name_____ [EMISS1]
3  XEUS Retransmission MISS_____ [Y]

0  Return
```

- 1 XEUS MISS Set to "Y" to enable the XEUS Xervice on this MISS.
- 2 XEUS WAN name Set to the hostname assigned to the network interface pointing to the XEUS back end.
- 3 XEUS Retransmission MISS Set to "Y" to enable the XEUS Retransmission Xervice on this MISS

After making the appropriate settings, leave the menu by pressing <0> until the "Required Minimum Configuration" appears.

```
***** Configuration Utility *****

      Required Minimum Configuration

1  <DONE> XEUS Miss Configuration
2          XEUS Sublist file
3          XEUS Member Id
4          XEUS MISS Group Id

0  Return
```

Select the menu item <2> to define the XEUS broadcast subscriptions to the back end.

```
***** Configuration Utility *****

      XEUS Sublist Configuration Menu

1  Private Broadcast
2  Public Broadcast

0  Return
```

Select the menu item <1> to define the XEUS private broadcast subscriptions.

```
***** Configuration Utility *****

      XEUS Sublist for ABCFR

1  Private recoverable trade confirmation_____ [Y]
2  Private recoverable single leg order confirmation_____ [Y]
3  Private recoverable double leg order confirmation_____ [Y]
4  Private recoverable strategy order confirmation_____ [Y]
5  Private unreliable strategy quote confirmation_____ [Y]
6  Private unreliable single leg quote confirmation_____ [Y]
7  Private unreliable double leg quote confirmation_____ [Y]
8  Private unreliable execution confirmation_____ [Y]

0  Return
```

Select the menu item <0> to return to the previous menu.

Select the menu item <2> to define the XEUS public broadcast subscriptions.

```
***** Configuration Utility *****  
  
      XEUS Sublist for Public Broadcasts  
  
1   Public recoverable broadcast_____ [Y]  
2   Public unreliable order book broadcast_____ [Y]  
3   Public unreliable broadcast_____ [Y]  
  
0   Return
```

Select the menu item <0> to return to the previous menu.

```
***** Configuration Utility *****  
  
      Required Minimum Configuration  
  
1   <DONE> XEUS Miss Configuration  
2   <DONE> XEUS Sublist file  
3   <DONE> XEUS Member ID_____ [ABCFR]  
4   <DONE> XEUS MISS Group Id_____ [A]  
  
0   Return
```

Now define through menu items <3> and <4> the XEUS Member ID (assigned by the exchange) and the MISS group ID which is a unique identifier throughout a MISS group.

Then select the menu item <0> to return to the previous menu.

```
***** Configuration Utility *****
      Configuration Menu

1  MISS/WS Architecture Configuration
2  Multicast Configuration
3  GATE Configuration
4  XEUS Configuration
5  Required Minimum Configuration

0  Return

Please Select:
Do you want to save the changes in the configuration files and exit?

y => save and exit
n => no save but exit
c => just continue

y(es)/n(o)/c(ontinue): y
```

Select the menu item <0> and type <Y> to save your configuration.

## 5 Verifying the Eurex US Installation

### Important!

The GATE front end software must be running on the MISS and WS before starting Eurex US. Refer to the *Front End Installation Guide GATE 3.2* for the GATE front end software.

### Important!

After completing the local installation procedure, testing and verifying the system cannot be performed before the **Eurex US Usim (Security Interface Manager)** file is received via FTP. This library is delivered, if requested, from the Eurex US Technical Helpdesk. The helpdesk can be reached by dialing tbd.

Windows:

For production, the file *xeususim.dll* must be copied to *GATE\_drive:\opt\gate\base90\bin*.

For simulation, the file *xeususim.dll* must be copied to *GATE\_drive:\opt\gate\base91\bin*.

SUN Solaris:

For production, the file *libxeususim.so* must be copied to */opt/gate/base90/lib*.

For simulation, the file *libxeususim.so* must be copied to */opt/gate/base91/lib*.

Do not use the root user to start the system, otherwise the gateadm cannot restart the GATE front end software.

To verify the installation of Eurex US front end software for MISS, perform the following steps:

### 5.1 Shortcuts

After a successful GATE and Eurex US installation procedure, the following shortcuts have been created in the Application manager folder (Sun Solaris) or the Start-Menu folder (Windows):

Shortcut	When double-clicked
StartGateR32	Starts the communications architecture GATE
StopGateR32	Stops the communications architecture GATE
XmenuR32	Starts the GATE administration menu
Configuration Utility	Starts the Configuration Utility
Start XEUS 1.0 Trading	Starts the new Eurex US trading application

## 5.2 Step 1 - Start Eurex US MISS

Log on as gateadm and start the Xmenu on the MISS by typing the following at the command prompt window:

```
cd /opt/gate/base90/bin (for production)
```

```
cd /opt/gate/base91/bin (for simulation)
```

```
Xmenu.pl
```

Alternatively the Xmenu icon can be used.

```
***** MISS 1234           Production (Base90) *****

      Main Menu

1  Start/Stop of Communications Architecture
2  Xervice Management
3  Pre-schedule start/stop of Communication Architecture
4  Display system status
5  Display exception log
6  Display message log
7  Configuration utility

0  Return
```

In the main menu select: menu item <1> Start/Stop of Communications Architecture

```
***** MISS 1234           Production (Base90) *****

      Start/Stop of Communications Architecture

1  Startup Communications Architecture (Start-of-day)
2  Start Communications Architecture (Intra-day)
3  Shutdown Communications Architecture (End-of-day)
4  Stop Communications Architecture (Intra-day)

0  Return
```

In the Start/Stop Communications Architecture menu select:

Startup Communication Architecture (Start-of-day)

### 5.2.1 Step 2 - Check MISS System Status

To verify the system status, start the Xmenu script via the icon or the command line.

Select menu item <4> Display system status and then <2> Status of Xervices

```
Status of Xervices

BASIC_ARCHITECTURE      AVAILABLE
SECURITY                 AVAILABLE
SESSION                 AVAILABLE
MSG_LOGGING             AVAILABLE
XEUS                    AVAILABLE
XEUS_RETRANSMISSION    AVAILABLE

Press <Enter> to continue
```

It is possible to examine the exception log file at any time. This file is located in the directory `../logs/exceptions/active`. The Event Reader can display this file, and is available from the main Xmenu menu.



### Important!

With A/C/E 1.1 the *CBoT Retransmission Xervice* was only available on **one** MISS per MISS group. With Eurex US 1.0 the *XEUS Retransmission Xervice* is available on **all** MISSes in the MISS group.

## 5.3 Step 3- Start Eurex US WS

Log on as gateadm and start the WS using the *StartGateR32* icon starts the communication links with the MISS.

Use the Xmenu on the MISS to check if the WS is connected via point <4> *Display system status* and <3> *List of active LAN connections* for this device.

Once the Gate architecture has started on the WS, click on the *Start XEUS 1.0 Trading* icon to start the Eurex US @X-ceed trading system.

Log in to the trading application and open the *Market Overview* window, which displays overall market data for a specific product or profile. Test the Market Overview during trading hours with an actively traded product. If the window shows dynamic market data updates, it may be safely assumed that the Eurex US WS has been installed properly.

## **6 Appendix A - Installation Worksheet**

### **6.1 Introduction**

The installation worksheet is provided to help install the Eurex US front end software package.

The installation procedure of the installation kit for the MISS and WS package allows for easy installation and configuration of the software. To correctly configure the software, the installation procedure requires some user-specific details about the hardware, and some information provided by the exchange.

The installation worksheet has three main purposes:

It conveniently collects all the information required during the installation process.

It documents the system.

It helps the Eurex US Technical Helpdesk to resolve any problems.

The worksheet is divided into several sections:

- A Hardware Configuration Details
- B Configuration Information Supplied by the exchange
- C MISS Configuration Details
- D Workstation Configuration Details.

## **6.2 Sections**

### **6.2.1 Section A - Hardware Configuration Details**

Write down the details of the systems configuration:

Free Disk Space

### **6.2.2 Section B - Configuration Information Supplied by the Exchange**

Please fill out the following details:

Member ID

FTP password for eusnet40 or eusnet41

### **6.2.3 Section C - MISS Configuration Details**

Domain Name or Workgroup which is used (Windows Only)

LAN-Host Name

WAN-Host Name (provided by the exchange)

Broadcast Address of MISSes / Multicast Environment Address

LogicalDevice ID of the MISS A (Range 1-9999)

LogicalDevice ID of the MISS B (Range 1-9999)

MISS Group ID

### **6.2.4 Section D - Workstation Configuration Details.**

Logical device ID of each Workstation (Range 20000-29999).

Host name of each Workstation

Eurex US Front End Installation Worksheet

Help Desk: tbd.

A - Hardware Configuration Details

	MISS A	MISS B
Free Disk Space		

B- Configuration Information provided by Eurex US

Member ID	-----
FTP eusnet40/eusnet41 Password	-----

C- MISS Configuration Details

	MISS A	MISS B
Domain Name (Windows Only)		
LAN-Host Name		
WAN-Host Name		
Logical Device ID		
MISS Group ID		

D - Workstation Configuration Details

WS Number	Primary MISS position	Logical Device-ID	WS Host name
01			
02			
03			
04			
05			
06			
07			
08			
09			
10			

## **7 Appendix B – Set-up of a Multi Member MISS**

### **7.1 Introduction**

A multi-member MISS (MM MISS) allows two or more members to be setup within one MISS group, where each member subscribe to its respective private broadcast streams and the public streams are subscribed just once.

### **7.2 Prerequisites**

Correctly installed GATE and Eurex US front end software is required. A valid set of configuration files

(configmbr.ini and XEUSmbr.ini) must be set up. Invalid configuration entries may lead to the loss of broadcast streams, fail-over capability, and potentially worse problems.

### **7.3 Configuring a Multi Member Front End Environment**

#### **7.3.1 Contact Eurex US Customer Service**

A MISS is configured as a multi-member MISS on the back end and on the member MISS. The member should contact Eurex US Technical Helpdesk to have the necessary back end changes made (please see chapter 1.1 for contact details).

The member must change the XEUSmbr.ini, mmlogin.dat, mmstreams.dat and xeussublist.dat files to set up a multi-member MISS after the respective back end changes have been made. The following examples assume a MISS only machine that is to be configured as a multi-member MISS for two members, Memb1 and Memb2.

#### **7.3.2 Modify the XEUSmbr.ini file**

For multi-member broadcast authentication, select menu item number 5 from the XEUS *Configuration* menu:

```

***** Configuration Utility *****

      XEUS Broadcast Authentication Menu

1  XEUS Broadcast Validation_____ [ 0 ]
2  XEUS Retransmission Login Input File[../XEUS/data/mmlogin.dat]
3  XEUS Retransmission Stream Input File
    [../XEUS/data/mmstreams.dat]

0  Return

```

XEUS Broadcast Authentication Menu

- |   |                                  |  |
|---|----------------------------------|--|
| 1 | Broadcast Validation             | XEUSmbr.ini entry <i>SubscriptionAuthorization</i> , a flag which specifies whether multi member specific broadcast validations are performed:<br>0 - disabled, no validation (default)<br>1 - enabled, validation is active |
| 2 | Retransmission Login Input File  | XEUSmbr.ini entry <i>MultiMemberLoginFile</i> , please see section 7.3.3 for file content  |
| 3 | Retransmission Stream Input File | XEUSmbr.ini entry <i>MultiMemberStreamFile</i> , please see section 7.3.4 for file content   |
| 0 | Return                           | Type 0 to return to the previous window  |

Alternatively, any text editor may be used to correspondingly open and modify the XEUSmbr.ini file entries. The resulting file section should look something like the following:

```
[XEUS.BcastAuthorization]
```

```
SubscriptionAuthorization = 1
```

```
MultiMemberLoginFile = ../XEUS/data/mmlogin.dat
```

```
MultiMemberStreamFile = ../XEUS/data/mmstreams.dat
```

### 7.3.3 Modify the mmlogin.dat file

Entries must be made in the *mmlogin.dat* file for each member. Alternatively the Configuration Utility can be used to carry out the necessary changes. These entries specify which trader accounts are active for each member. For example, Memb1 connects to Eurex US using account1, account2 and account3; and Memb2 connects using account10, account11 and account12. The corresponding entries in the mmlogin.dat file are as follows:

```
Memb1: account1, account2, account3
```

```
Memb2: account10, account11, account12
```

### 7.3.4 Modify the mmstreams.dat file

Entries must be made in the mmstreams.dat file for members to see streamed messages. Alternatively the Configuration Utility can be used to carry the necessary changes. If no entry is made in this file, each member only sees its own private broadcasts. Entries in this file allow members to subscribe to broadcast streams. For example, to allow Memb2 to see trade confirmations (back end stream code A) and single leg order confirmations (back end stream code B) of Memb1, the following entry is made:

```
Memb2Memb1: A, B
```

The associated back end stream codes are shown in the Eurex US Front End Operations Guide.

With the above configuration entry, each trader of Memb2 can see their own private broadcasts and the trade and single leg order confirmations of Memb1. Traders of Memb1 can only see their own private broadcasts.

### 7.3.5 Modify the xeussublist.dat file

A sample *xeussublist.dat* contains the following entries:

```
; subscribe to public and private broadcast streams  
Memb1A  
Memb1B  
Memb1C  
  
Memb2A  
Memb2B  
Memb2C  
XXXXXF
```



Please note that all entered member IDs have to be valid and correct. If invalid member IDs are detected, the multi-member MISS startup will fail.

### 7.3.6 Restart the Application

After all of the above changes are made to the system, shut-down the XEUS Xervice. Once the multi-member MISS is properly set up on the back end, the system works as a multi-member MISS upon the next start-up.

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