



# Nasdaq Precise Technical Installation Guide

VERSION 1.4.6

July 9, 2018

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## 1 Introduction

This document describes how to download install, and configure Nasdaq Precise to enable Nasdaq ISE (ISE) and Nasdaq GEMX (GEMX) participants the ability to send and manage orders and executions.

Nasdaq Precise is an award-winning front-end order and execution management system for trading options and stock-option combinations. PrecISE provides traders with the ability to submit, monitor, alter, and cancel orders; display the NBBO and BBO of options at ISE and GEMX; and route orders to all options exchanges via Execution Brokers. PrecISE is installed on a desktop and connects to ISE's options exchanges' via the Internet using SSL security

### 1.1 Technical Requirements

In order to access the Nasdaq Precise INET test and production platforms, members must meet the technical requirements described in **Section 2: Nasdaq Precise Technical Requirements**.

Precise users must upgrade to the Microsoft .NET 4.5 Framework, as described in **Section 3: Downloading and Installing Microsoft's .NET Framework Software**.

All documents are available on the [Precise Landing Page](#).

### 1.2 Support

Participants that encounter problems or have questions can contact the [Market Operations](#) Desk by email or phone at (215) 496 1571

## 2 Nasdaq Precise Technical Requirements

This chapter is intended to provide technical information about the Nasdaq Precise application.

Nasdaq has developed a Front End trading application known as Nasdaq Precise which provides for the online trading of options and stock-option combinations on ISE and GEMX option exchanges. The application is installed on the user's PC and connects to servers on the Nasdaq INET infrastructure.

### 2.1 Configuration Overview

Nasdaq Precise is a Microsoft .Net application that is installed on the traders PC. When started, the user enters a UserID, Password and server network address. The application will connect to the specified server on the Nasdaq INET infrastructure. Trading commands result in messages being sent to the Nasdaq INET server to perform the requested action. Messages are sent back to the application to update the status of orders and trades. The application is constantly communicating to the Nasdaq INET server to obtain market data updates for the options that are currently on display.

## 2.2 Supported Platforms

Nasdaq Precise requires the following:

- Operating System:
  - Windows XP, Vista, and Windows 7
  - Microsoft Framework .NET v4.5 – Precise is built on Microsoft’s .NET framework
- Minimum Hardware Requirements:
  - 1 GHz PIII
  - 1 GB Hard Disk Drive space
  - 512 MB RAM
- Application:
  - 100 MB memory
  - 60 MB of disk storage, 15MB for application and 45MB for log files
  - Will poll for market data updates twice per second and will use approximately 30 kbps per user.

## 2.3 Network Details

There are two methods to establish network connectivity to Nasdaq Precise:

- Dedicated line – The trader installs a dedicated line to Nasdaq INET infrastructure
- Internet Connection – A connection to Precise using an Internet connection.

Connectivity is initiated by the Precise user. Nasdaq Precise never attempts to connect to the workstation. The Precise user must have a public IP address (does not have to be unique) when connecting to Nasdaq Precise. The application will poll for updates twice per second. The normal data rate is 30kbps per user. The application secures information over the network using SSL (port 443) and is compressed using GZIP compression.

No data is broadcast into the member’s network. The Nasdaq Precise server will only respond to a poll or transaction initiated by the front end application. The server will only send data that changes for the options that are being watched.

## 2.4 Security

Each participant must enter a unique UserID and Password in order to log into Nasdaq Precise. The Password must conform to standard “strong” security guidelines with a minimum length and the requirement to change it every 30 days. The password will not be remembered by the application. The application requires two factor identification. The first is the UserID and strong password, the second is a known network address. The network connection is secured by 256-bit SSL. Each Nasdaq Precise server has a digital certificate that is issued by Verisign. The keys are exchanged upon session initiation and must be valid for the session to continue. Nasdaq Precise does not store confidential data on the PC other than in the trace logs. Nasdaq Precise will not an inactivity timeout we understand many participants use the application to monitor prices.

The application uses a proprietary protocol and there is no file transfer and therefore is not susceptible to viruses.

### 3 Downloading and Installing Microsoft's .NET Framework

Precise is built on Microsoft's .NET Framework. Users must have this framework software installed to properly run Nasdaq Precise. The latest version of Precise using Microsoft's .NET Framework version 4.5. The Microsoft .NET Framework version 4.5 (x86) redistributable package installs the .NET Framework runtime and associated files required to run applications developed to target the .NET Framework v4.0.

To verify the current Microsoft .NET version installed on the computer, locate this folder:

- If using a 64 bit machine, C:\WINDOWS\microsoft.net\Framework64\v4.5
- If using a 32 bit machine, C:\WINDOWS\microsoft.net\Framework\v4.5

If there is no folder named v4.4, it will be necessary to upgrade. Please refer to Microsoft's Download center. Look for the following package:

- Microsoft .NET Framework Version 4.5 Redistributable Package (x86)
- [Microsoft .NET Download](#)

### 4 Nasdaq Precise Connectivity

Users should contact their network administrators to ensure proper connectivity is in place before attempting to connect to ISE or GEMX via Nasdaq Precise.

#### 4.1 Production Connections

To connect to the ISE/GEMX via Nasdaq Precise there are several points of access. Refer to the table below for your preferred or required connectivity option.

Connection Description	INET IP
Production access via direct lines or service providers	207.231.197.37

#### 4.2 Member Test Connections

Please refer to the table below to connect to the ISE member test environments with Nasdaq Precise.

Connection Description	INET IP
Member Test 1 Environment access via direct lines or service providers	207.231.198.17
Member Test 2 Environment access via direct lines or service providers	207.231.198.18

## 4.3 Network Checks for Proper Connectivity

There are several network checks to confirm connectivity to the Precise host.

### 4.3.1 Precise Ping

The first network connectivity test is to ping the selected Precise Host IP address.

To ping a Precise IP address, follow these steps:

1. Click the Windows Start button on the lower left corner of your computer screen. The Start menu appears.
2. On the Start menu, select Program, then Accessories, then Command Prompt. The Command Prompt will appear.

3. At the blinking prompt type: *ping servername* where *servername* is the URL or IP address to ping. Press the Enter key. The Command Prompt will ping the IP address four times and display results before returning to a blinking cursor.
4. Type exit then press Enter in the Command Prompt to close it

#### 4.3.2 Telnet

A second network connectivity test is to open a telnet session to the selected Precise Host IP address with port 443.

To telnet to the Precise host with an IP address, follow these steps:

1. Click the Windows Start button on the lower left corner of your computer screen. The Start menu appears.
2. Select Program, then Accessories, then Command Prompt. The Command Prompt will appear.
3. At the blinking prompt type: *telnet servername 443* where *servername* is the URL or IP address to connect with telnet and *443* is the port address. Press the Enter key. The Command Prompt will open a telnet session, a black screen with a single blinking cursor.
4. Type q or quit or close to end the telnet session.
5. Type exit then press Enter in the Command Prompt to close it.

#### 4.3.3 Proxy Settings

Connection to the Nasdaq Precise Host might be subject to Proxy settings at member's site.

Member firms may be required to adjust their proxy server/firewall configuration to allow connectivity with the Nasdaq Precise host. Member firms may also choose to re-configure proxy settings on their local workstations or change the global proxy configuration script to allow Nasdaq Precise to bypass a proxy server and connect to the Nasdaq Precise host directly.

To summarize, there are four options to allow Nasdaq Precise software to connect to the Nasdaq Precise host:

- Proxy/Firewall server configuration
- Global Proxy Configuration Script
- Local Workstation Configuration
- Precise Supported Configuration

##### 4.3.3.1 Network/Firewall Configuration

This option is recommended if your company has a policy in place to direct workstation's internet traffic to a specific proxy server or a firewall. Your company network administrators should contact the ISE networks department and configure the proper firewall or proxy server settings to allow Nasdaq Precise traffic through.

#### 4.3.3.2 Configuration Script

This option is available if your company controls workstation's proxy settings by an automated proxy script. The script will have to be altered to allow Precise traffic to bypass your proxy server and reach Precise host directly. Contact your network and or systems administrator for assistance.

#### 4.3.3.3 Local Workstation Configuration

If the previous two options do not apply and you still need to by-pass proxy, your system administrator can configure your workstation, by following the steps below....

1. Click Start / Control Panel / Internet Options or open an internet browser window and select Tools / Internet Options





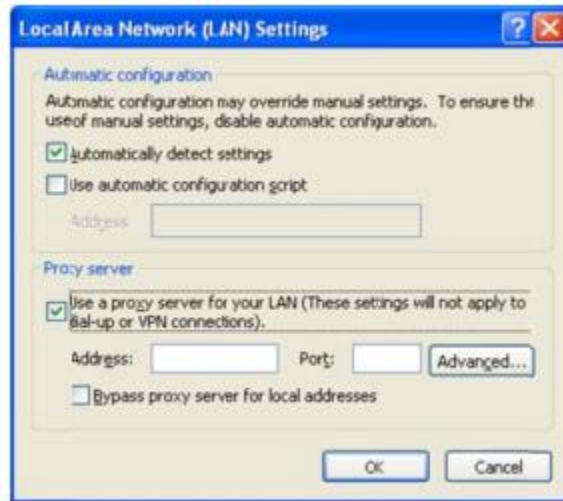
2. Click the Connections tab in the internet Properties window:



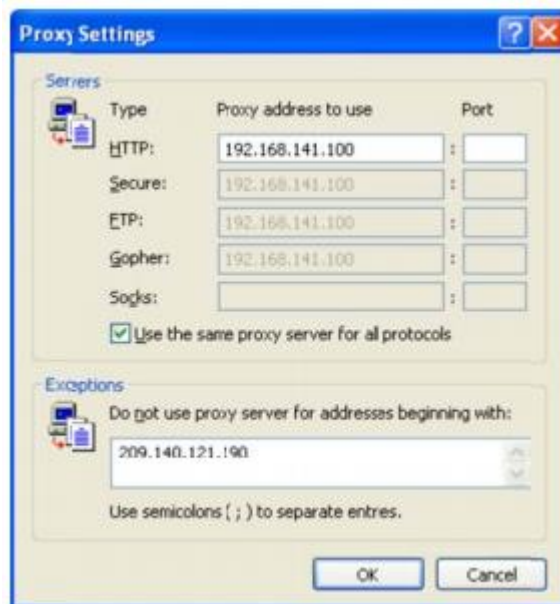
3. Click the LAN Settings button:



4. Click the Advanced button:



5. Add the Nasdaq Precise Host IP Address to the text box in the "Exceptions" section. Click the "OK" button. Log in to Nasdaq Precise:

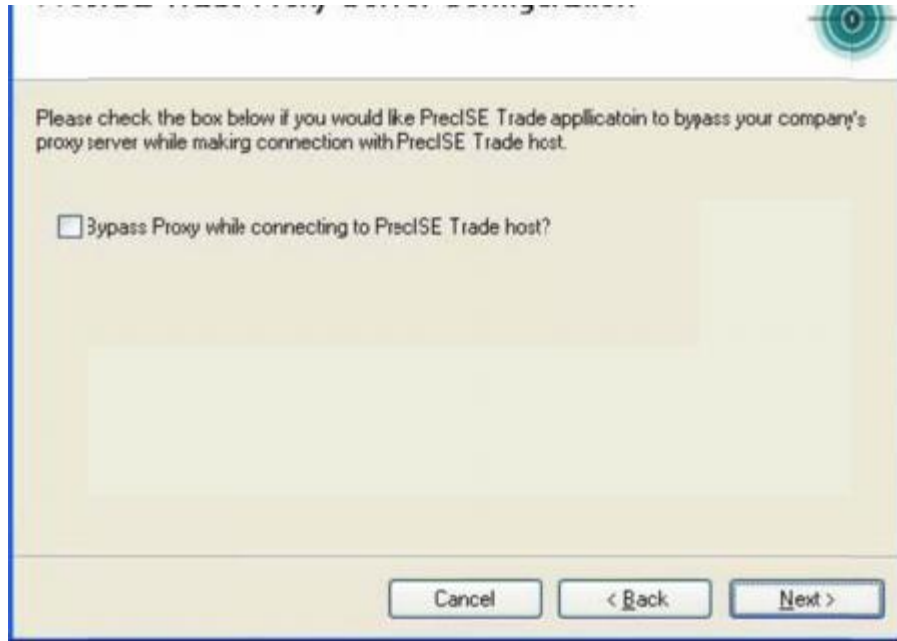


#### 4.3.3.4 Nasdaq Precise Supported Configuration

It is recommended users apply the previous suggested options, however Precise does offer a limited solution as an option for users to by-pass their proxy settings.

The new **Full Download or Stand Alone** version of the software now provides support on an application level. Beginning with Release 2.1.1.; there is an option to Bypass Proxy during the installation process as shown in the figure below.

If this option is selected the configuration is adjusted automatically to Bypass Proxy. Please consult your Network and Systems administrator for assistance.



**NOTES:**

- This option must be re-applied with each installation of a new Release.
- This option is not available for the Smart Updater and only applies to the Full Download version of the Nasdaq Precise software.
- If you have the Smart Updater version and you have made proxy setting adjustments, contact your system and or network administrator to re-apply those settings for any upgrade or downgrade.

## 5 Add/Remove Existing Nasdaq Precise Installations

This section does not apply to first time Nasdaq Precise installations. For users with an existing Nasdaq Precise installation it is recommended you uninstall the current version for a clean upgrade.

You must be logged on as an administrator or a member of the Administrators group in order to complete this procedure. If your computer is connected to a network, network policy settings might also prevent you from completing this procedure.

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**NOTE:** Installing with the Smart Updater version of Precise includes the option to uninstall the software automatically without the steps below. Install again with the Smart Updater and select uninstall when you are presented with the option to install, overwrite the existing installation, or uninstall the Nasdaq Precise software.

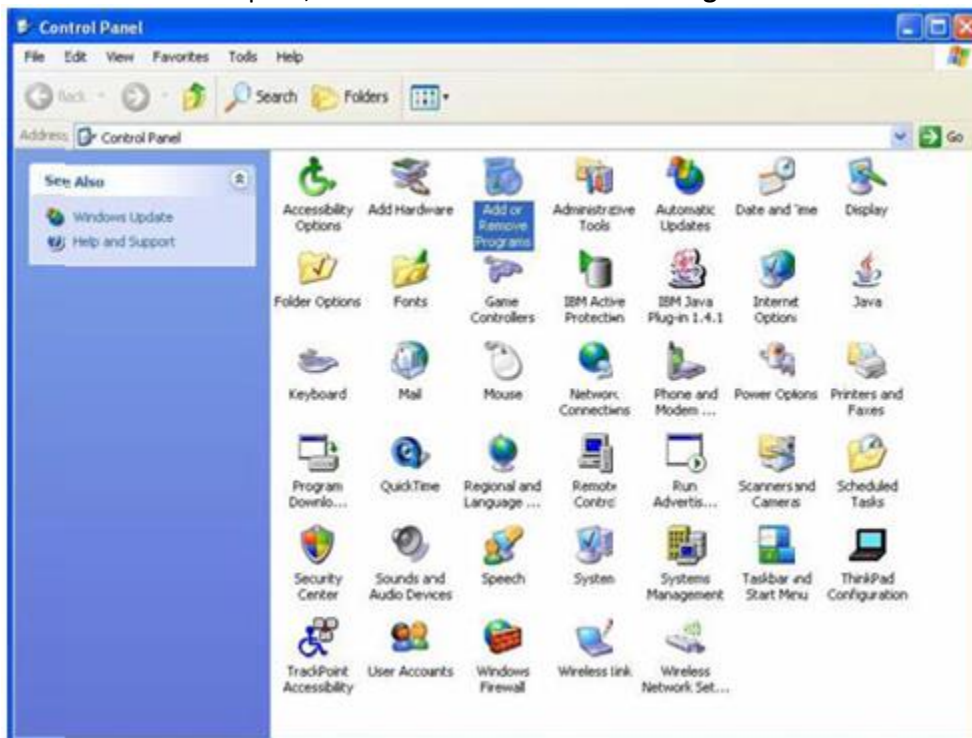
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To add or remove an existing Nasdaq Precise installation, follow these steps:

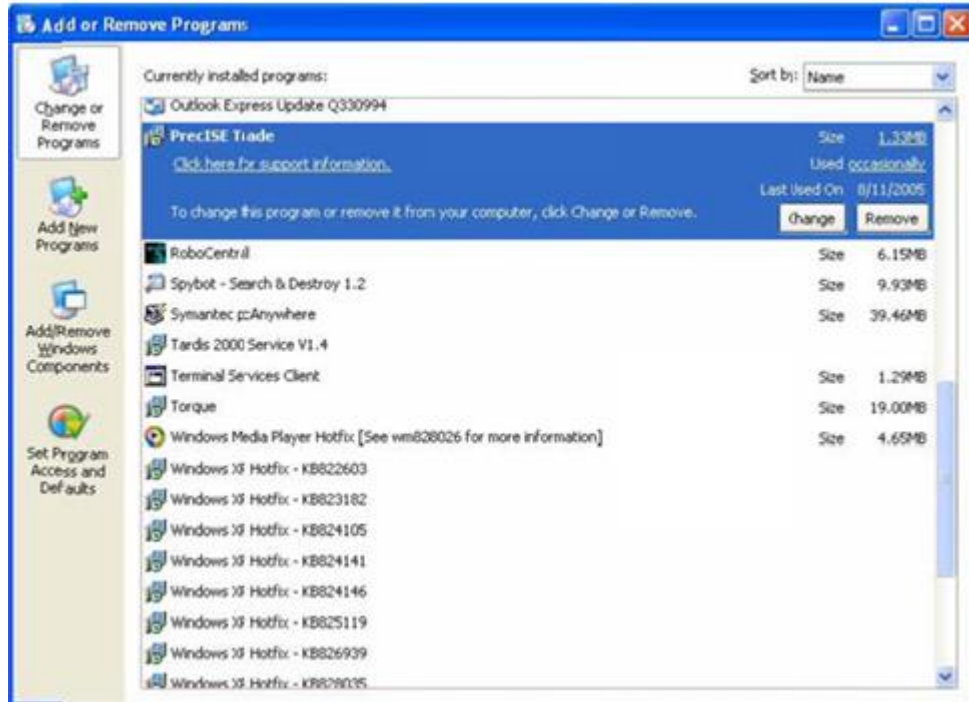
1. Click the Windows **Start** button and select **Control Panel**



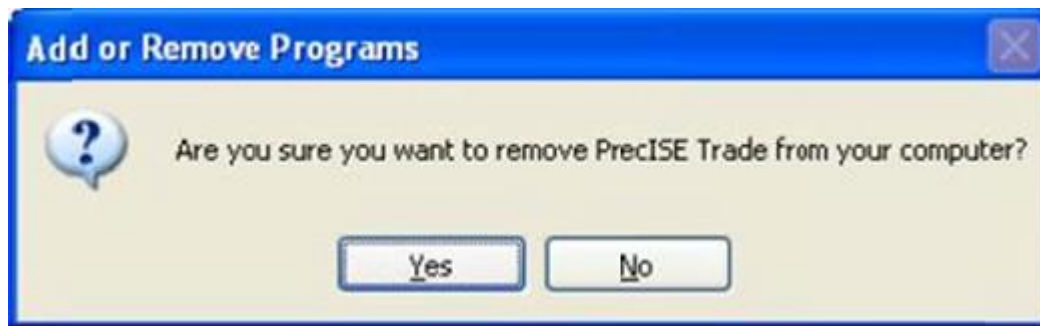
2. When the Control Panel opens, double click **Add or Remove Programs**:



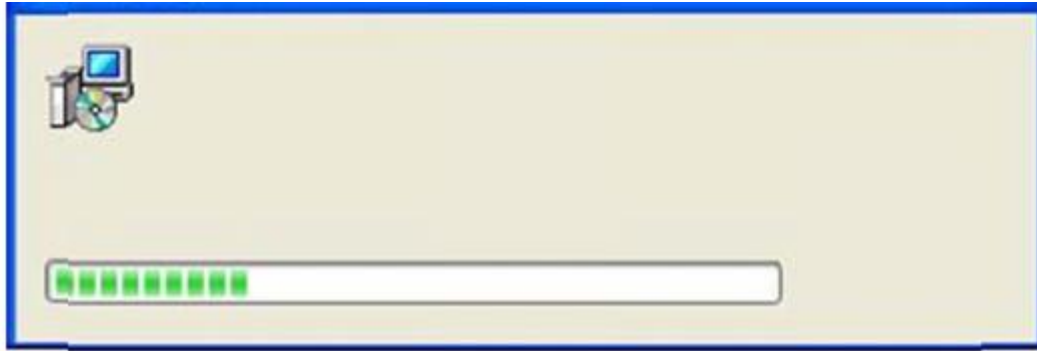
- The Add or Remove window will open. Scroll to the Nasdaq Precise icon and highlight by selection. Then click the Remove Button:



- A prompt will follow confirming your selection to remove Nasdaq Precise. Click **Yes** to confirm.



- A prompt will pop up and indicate the removal status. Upon completion the Nasdaq Precise program will be gone from the Add or Remove Window.



## 6 Downloading New Nasdaq Precise Software

Precise download links have been migrated and are now available on the [Nasdaq Precise page](#). To access the Precise secure download, users are now required to enter an individual username and password. Current Precise users should have received an email in January 2018 with their new secure download username, a temporary password and instructions on changing the password.

To access the secure download for Precise (not required for username/password setup):

1. Click on either the “Standalone” or “Smart Updater” link on the [Nasdaq Precise page](#).
2. When prompted, enter the secure download username and password.

Note that this new username/password is **for the secure download links only** and will not impact current Precise application login credentials. Users will continue to log into the Precise application with their existing application username and login.

Users who have not received an email or have not set up a Precise download username/password should contact [Market Operations](#) or call at (215) 496-1571

## 7 Installing New Nasdaq Precise Software

A Prerequisite to install Nasdaq Precise is to first download the Nasdaq Precise software, see Section 6: Downloading New Precise Software.

Locate the downloaded Nasdaq Precise software installation packages which will be in .zip file format. If you followed the download instructions in this guide, it will be located on your desktop. If your system administrator uses a different method for installation, you will need their assistance.

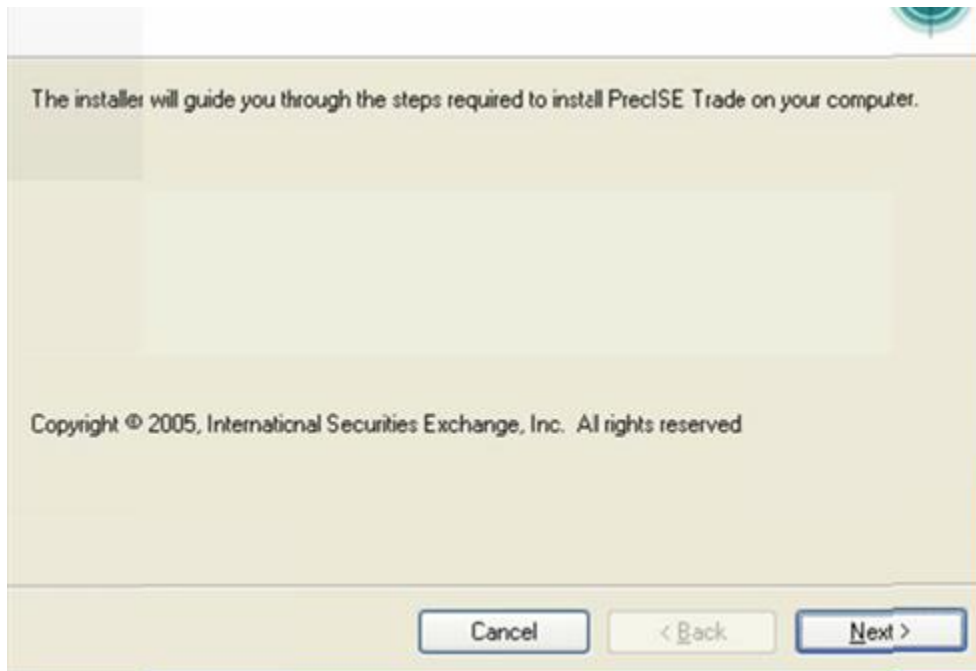
To install new Precise software, follow these steps:

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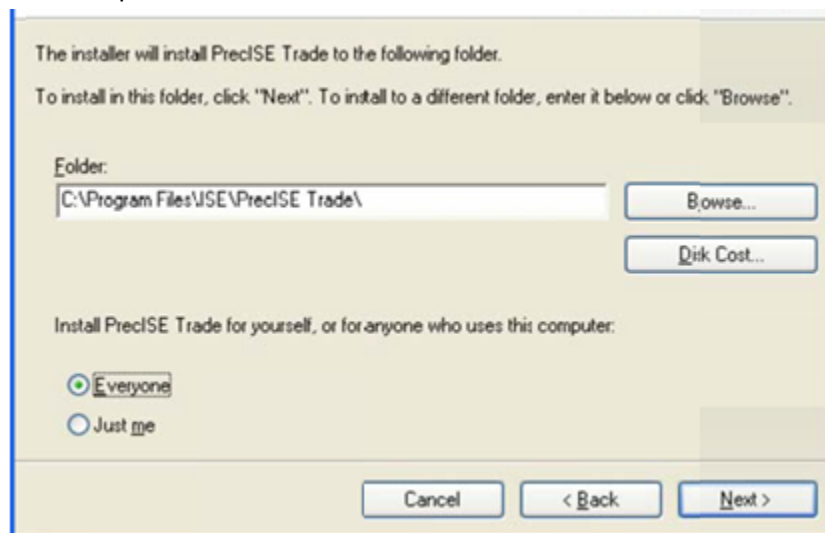
Version: 1.4.6

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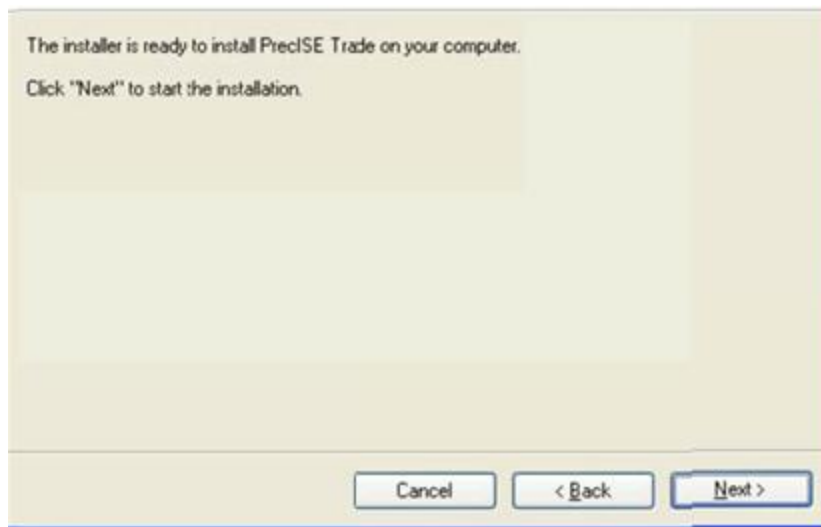
1. Double Click the downloaded install package to begin the installation. You will be prompted with the following install window. Click Next to proceed :



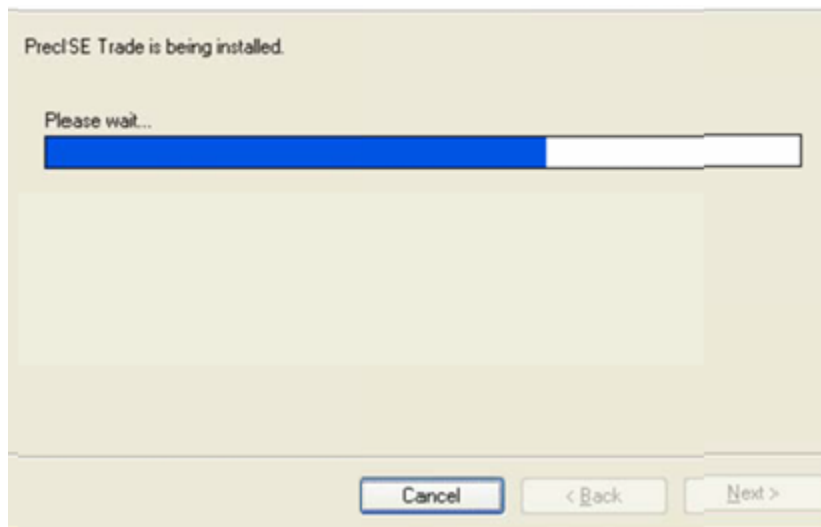
2. It is recommended you keep the default directory as suggested by the Installation Folder Window. Click Next to proceed.



3. A confirmation window will pop up, click the Next Button to continue:

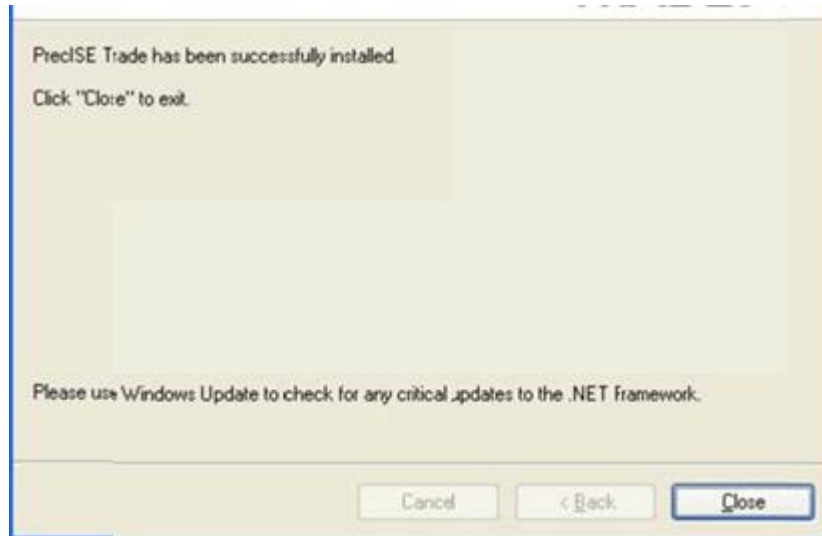


4. You will get a progress window for the installation:





5. You will then receive a message that the installation is complete. Click Close, a shortcut to the application will be placed on the Desktop.



## 7.1 Vista and Windows 7 Installation

### 7.1.1 Prerequisite

Administrator access is Mandatory for installation on Windows Vista and Windows 7. The user must belong to the admin group or an actual administrator is standing-by to help.

### 7.1.2 Installation Instructions

1. Log onto Windows Vista or Windows 7 using administrator (or user in the admin group)
2. Download Precise from ISE website.
3. Unzip the downloaded zip file, and double-click on the resulting executable to initiate the installation process. Once installed, continue on to the following steps.
4. Installation folder's permission (default is C:\Program Files\ISE) must be set so the actual users of Precise will have full rights to that folder.
5. If this is a smart-updater, admin user must start Precise for the first time to upgrade Precise.
6. Keep in mind; Precise logs are now under AppData folder, not application data folder as in windows XP. (Although vista still has the application data folder) Default folder path will be:

C:\Users\<user>\AppData\Roaming\ISE\PreciseTrade\logs\

### 7.1.3 Limitation

There is a known limitation regarding Nasdaq Precise logging reporting functionality. The automated Log Reporting is not currently supported under Windows Vista. In order to send log files to ISE, user will need to manually go into the directory mentioned in step 6 of the installation procedure, and email those logs to ISE.

## 8 Running the new Nasdaq Precise Software

After down and installation have been completed, you are now ready to run Nasdaq Precise on ISE or GEMX.

To Run Nasdaq Precise, follow these steps:

1. Locate the Precise shortcut and double click it to execute. The following login window will open. Enter your assigned User name and Password.



2. Click the Host Settings tab. If you are connecting via a direct line or service provider, enter the following IP address: 207.231.197.37 in the Primary Host field.
3. If you downloaded the Smart Updater package: the downloader progress window will pop up. Note: this only occurs on the first execution of a new installation. If you downloaded the Full Download package: Nasdaq Precise Application will simply start.