

MFG140 - ComTrader Setup Guide

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1 Abbreviations

Abbreviation	Meaning
AAC	Advanced Audio Coding
AMQP	Advanced Message Queuing Protocol
DSL	Digital Subscriber Line
GB	Gigabyte
GHz	Gigahertz
GPU	Graphics Processing Unit
HTTP	Hypertext Transfer Protocol
IP Address	Internet Protocol Address
JavaFX	Java Software Platform
JRE	Java Runtime Environment
LAN	Local Area Network
M7	M7 Trading Platform
MP3	A coding format for digital audio
RAM	Random-access Memory
SOCKS	Socket Connection, a proxy server protocol
SSL	Secure Sockets Layer
TLS	Transport Layer Security
URL	Uniform Resource Locator

2 Technical Requirements to run ComTrader

2.1 Client PC

To run the ComTrader application a PC that contains at least 2 Gigabytes of Memory. The processor's specifications should be at least 3GHz for a single core chip or at least 2GHz for a dual core processor.

The ComTrader application requires **a dedicated amount of memory totalling 1.1GB** . The optimal amount of memory can be found in Section [Using a Standalone Version](#) depending on the version in use.

A sound card is also required.

Platform	Notes to JavaFX Media
Windows 8 Windows 10	<p>The pre-installed Microsoft AAC and H.264 DirectShow decoder filters are used by default. However, if the MainConcept H.264/AVC Pro Decoder Pack is installed on your system, then the first available AAC or H.264 decoder from the following list is used within the following order:</p> <ul style="list-style-type: none">- MainConcept- Microsoft- DivX Plus- MainConcept trial version (demo codecs from Showcase). <p>If none of these decoders are available, AAC and H.264 decoding will fail.</p>
Linux	<p>You must install GLIB 2.28 in order to run JavaFX Media. You must install the following packages in order to support AAC audio, MP3 audio, H.264 video, and HTTP Live Streaming:</p> <p>libavcodec53 and libavformat53 on Ubuntu Linux 12.04 or equivalent.</p>

A list of supported graphics cards are listed below. In addition, to avoid rendering issues on Windows platform, upgrade the ATI driver to Catalyst 11.09 or later.

Graphics Card	Supported Graphics Processing Units (GPUs)
NVIDIA	<p>Mobile GPUs: GeForce 8M and 100M series or higher, NVS 2100M series or higher, and Mobility Quadro FX 300M series or higher</p> <p>Desktop GPUs: GeForce 8 and 100 series or higher</p> <p>Workstation GPUs: Quadro FX 300 series or higher</p>
ATI	<p>Mobile GPUs: Mobility Radeon HD 3000, 4000, and 5000 series</p> <p>Desktop GPUs: Radeon HD 2400, 3000, 4000, 5000, and 6000 series</p>
Intel	<p>Mobile GPUs: GMA 4500MHD and GMA HD</p> <p>Desktop GPUs: GMA 4500 and GMA HD</p>

Windows 8, Windows 10, Mac OS X and Linux operating systems are supported for running Java applications from Oracle Corporation.¹

Windows 10 and Linux Ubuntu (both 64-bit versions) are the Operating Systems supported by Deutsche Boerse AG for the M7 ComTrader application.

Running ComTrader on a Virtual Desktop based Infrastructure, as well as any other type of virtualisation setup (e.g. Citrix) is currently possible but is not supported. Therefore, levels of performance cannot be guaranteed.

The Client PC must have a suitable internet connection (DSL or higher is recommended). The connection to the backend can be made directly or over a leased line (dedicated network connection to the backend network). HTTP and SOCKS proxies are supported.

ComTrader needs a Java Plugin (JRE) with the version 8 update 60 or higher (the latest 64-bit version is recommended). Furthermore, the end-user of ComTrader needs access rights to the Java Plugin (e.g. Plugin cache).

When a standalone version is used, the proper Java version is bundled and does not require a separate installation.

To access the initial website an internet browser is required (Java Web Start supports primarily Internet Explorer 4 or higher and Mozilla).

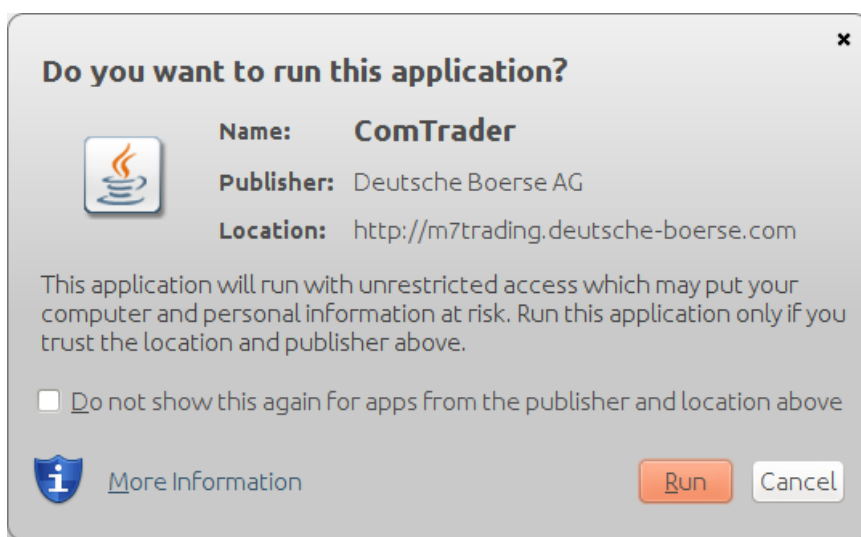
For the export functionality, Microsoft Excel 2010 is supported by Deutsche Boerse AG.

2.2 Starting ComTrader and Getting Connected

ComTrader is started via a web site (the address is provided in a separate document) or by running an executable file from a standalone package².

During the program start process, the Web Start³ mechanism completes a version check and, if necessary, the latest version of ComTrader will be downloaded.

Whilst starting, a security warning may be shown. The application is signed by a certificate of the Deutsche Börse Group signed by VeriSign. If VeriSign is not in the trusted authorities on an operation system level, the checkbox "I accept the risk and want to run this application" must be checked, before clicking "Run". A message showing the certificate details can also appear depending on the Java settings.



The size of this file may change in the future (e.g. by updates). Please make sure that the download of this file is not restricted by size limitations for zip or jar archives in your infrastructure. Furthermore, please make sure that the jar archive is not changed by any virus scanner.

2.2.1 Connections from ComTrader to Endpoints

A running ComTrader application connects to two different endpoints:

- An AMQPS based connection to the M7 Backend Application;
- An HTTPS based connection to the M7 Profile Server (the same Profile Server instance is used for all M7 services) - The profile server connection is not mandatory and provision of this functionality depends on the delivery configuration;
- Additional customer specific documentation (Environment Details) contains details for every environment. If access to the internet is restricted from the user's desk (e.g. by firewalls or specific proxy restrictions), the provided endpoints must be unlocked.

2.2.2 Proxy Server

If a proxy server is used, you need to configure your ComTrader client in the login window:

- Go to the tab "Connection"
- Fill in the parameters depending of the kind of proxy you use (SOCKS or HTTP) in accordance with your local settings

▼

Host	Port	User Name	Password
<input type="text" value="webproxy"/>	<input type="text" value="8080"/>	<input type="text" value="User Name"/>	<input type="text" value="Password"/>

Safeguards **Connection**

Note:

1. Regardless of the kind of proxy used (SOCKS or HTTP), it needs to be permitted to connect to the correct server and port (refer to IP and Port below).
2. If you are using an HTTP proxy, the HTTP CONNECT method must be enabled.
3. After a successful login, the proxy settings get locally saved on the user's computer and are pre-filled in future application executions.
4. When selecting No proxy, all communication (AMQP and Profile Data) will be performed directly, without proxy.
5. When using a SOCKS Proxy, all communication (AMQP and Profile Data) will be performed via the SOCKS proxy, according to the user-specified proxy settings.
6. When using an HTTP Proxy, all communication (AMQP and Profile Data) will be performed via the HTTP proxy, according to the user-specified proxy settings.
Note that AMQP traffic is tunnelled via an HTTP CONNECT request, which is often disabled by default. Proxy admins must enable the HTTP CONNECT method.

2.2.3 Leased Line

If a leased line is used, you need to configure your ComTrader client in the login window:

- Go to tab "Connection"
- Select "Leased-Line" from the drop-down menu

The parameters for the Host or Port shall not be filled in, because are related to the proxy connection type (see Chapter [Proxy Server](#)).

To be able to select this option, Leased Line must be configured in M7. The IP Addresses for the Leased Line are environment-specific and hard-coded in M7 meaning the client cannot change them.

You can find the IP Addresses for the Leased Line in the Environment Details document. **The client must ensure that he can access these IP Addresses.**

2.2.4 Changing Password

In case the password has been distributed to the user by other means than via an email with a password reset link, it is recommended that the user changes the initially provided password. This is done after the login process by navigating to application menu **Profile** → **Change Password**.

3 Check Infrastructure

3.1 Test Java Plugin

Open the provided URL ⁴ in your internet browser.

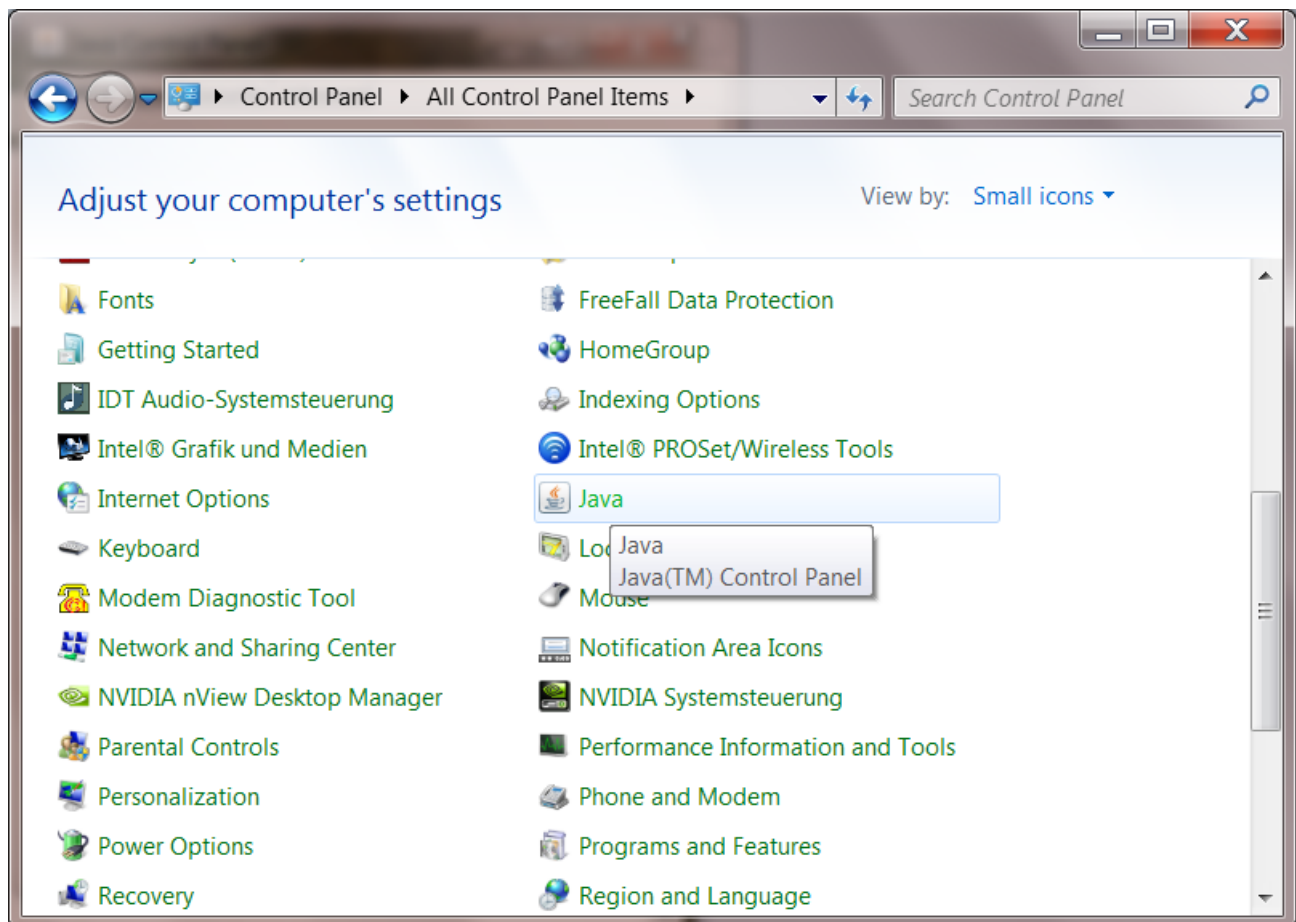
Click on the link “Start the ComTrader via Webstart”. If the browser wants to download, show or save a file named like “<FileName>.jnlp”, the Java plugin is not configured correctly. Sometimes just the file association of the .jnlp file is missing which leads to the following error > Java plugin is missing.

A manual for the ComTrader application can be either downloaded from this website or opened from the ComTrader application itself.

The current version of this Setup Guide can be also downloaded from this website.

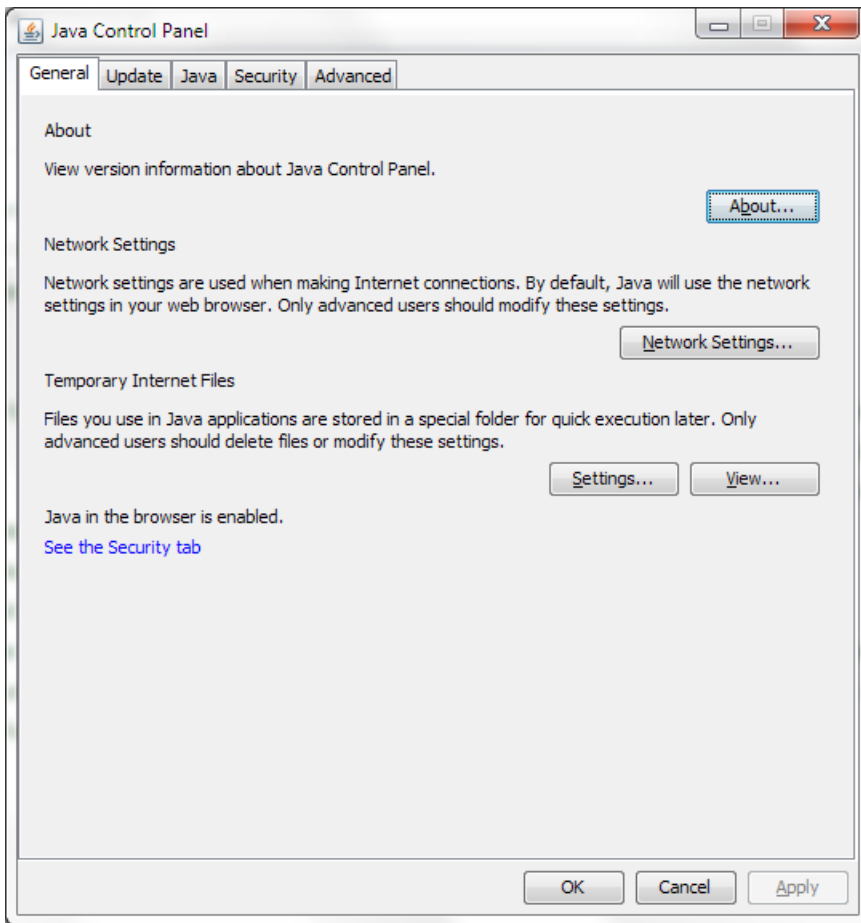
3.2 Java Plugin Settings

Open the Control Panel via the Windows start menu:



Double click the “Java” icon to open the plugin settings. If the icon is missing, the plugin is missing, or it has not been correctly installed.

The following window should open:

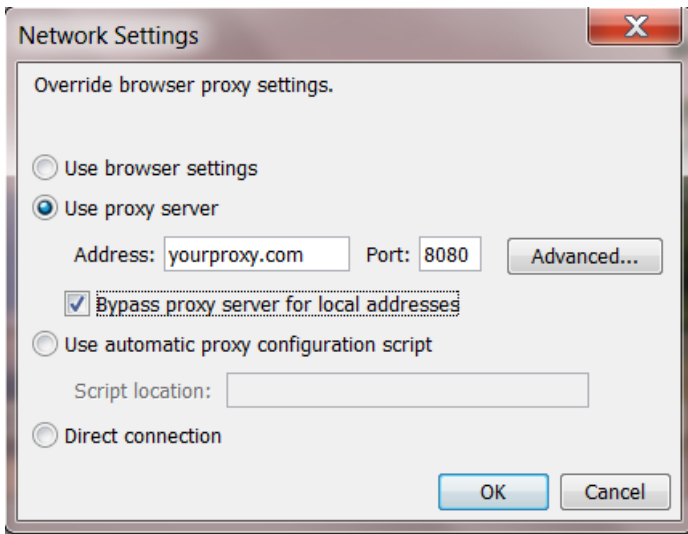


The Java plugin version can be verified by clicking on "About...":



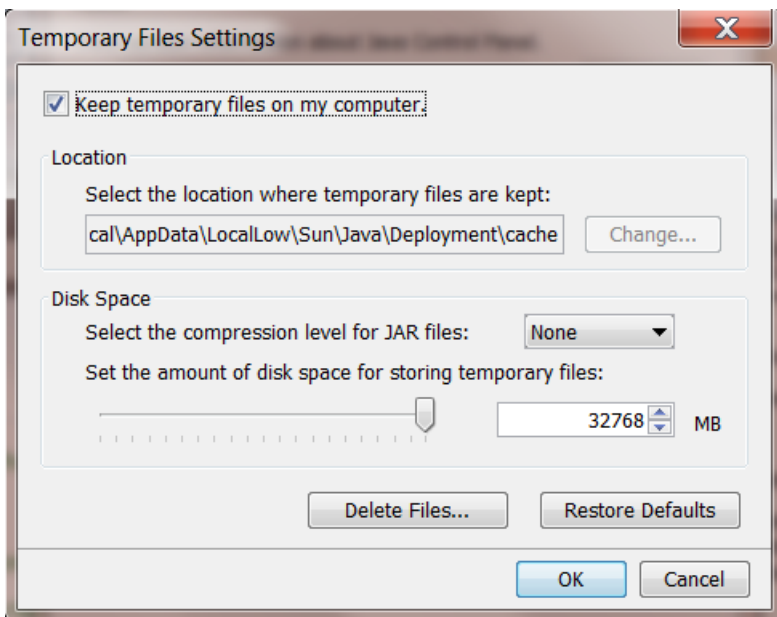
The version should be 8 update 60 or higher.

Open the network settings by clicking on "Network Settings...":



These settings are specific for your infrastructure. Please ask your system administrator for help. When no user access restriction is in place, you can adjust the settings in your internet browser and use it here by checking the “Use browser settings option”.⁵

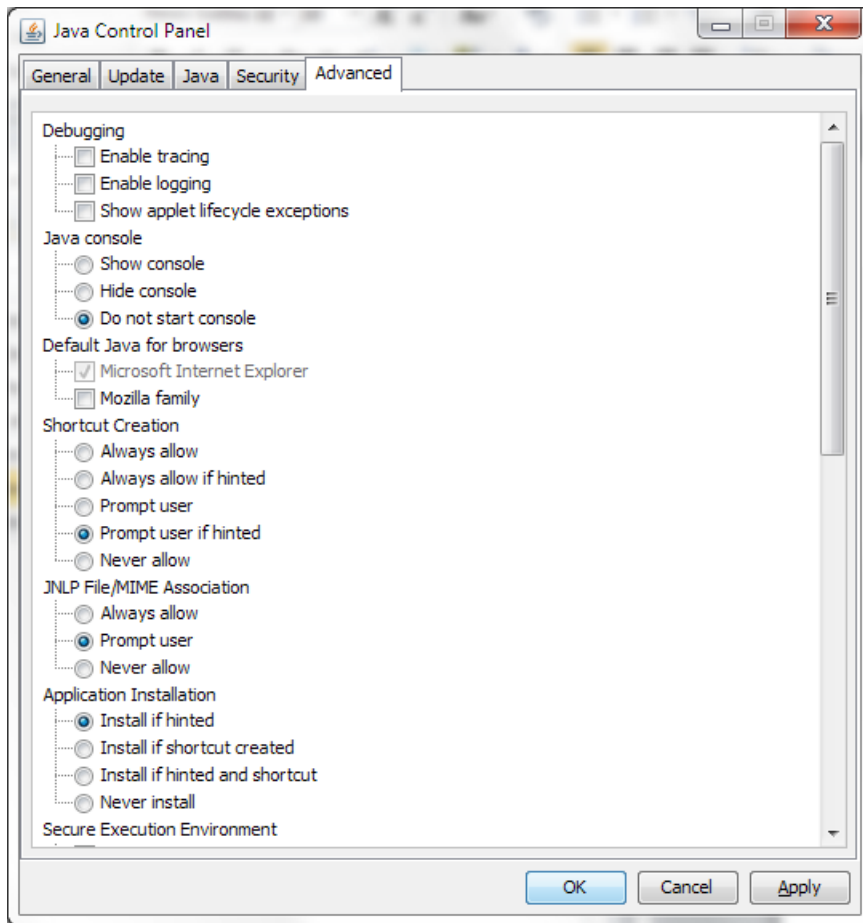
Open the settings for temporary internet files with a click on “Settings...”

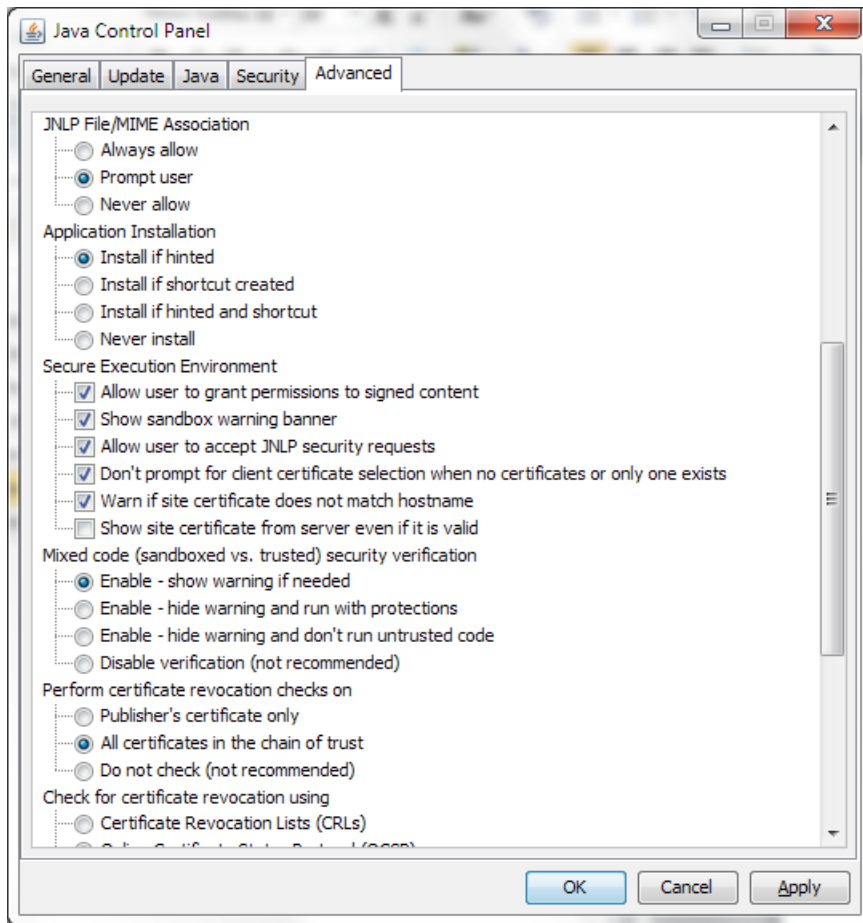


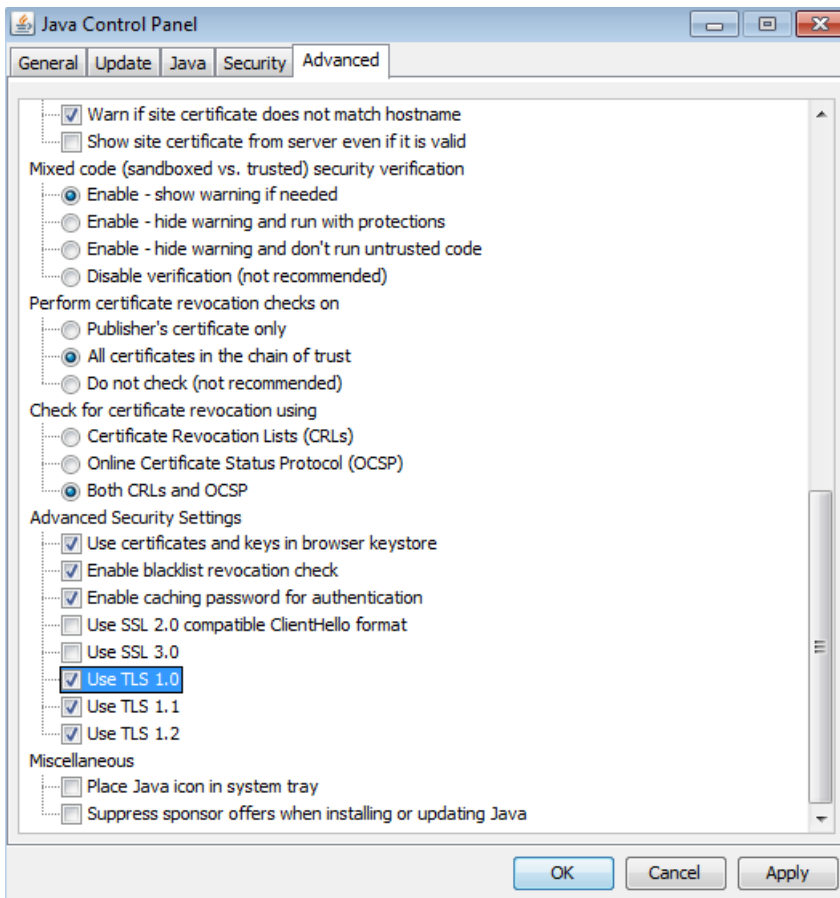
We suggest leaving the temporary files on the computer because otherwise the ComTrader application will be downloaded completely with every application start.

The end-user of ComTrader must have read and write access to the temporary files location. If you encounter problems with the download, please try to clear the cache (Button “Delete Files...”) and download the application again.

Change the tab to “Advanced”. The following settings are recommended:







TLS 1.0 and higher must be used for the Advanced security settings. SSL 3.0 (and older) is no longer supported as it is vulnerable to “poodle attacks” and must be unchecked.

3.3 Using a Standalone Version

In case there is any problem when running the WebStart version of ComTrader, standalone versions for windows operation systems (64bit version) - are also provided. The user can download these versions and run them without any installation being necessary.

The standalone package contains a folder with three exe files. The content of any files must not be changed. To run a 4G exe file, a user must have at least 6GB of RAM, for a 6G exe file at least 8GB RAM and for a 10G exe file at least 12GB.

The standalone package has a proper Java version bundled with it and does not use the WebStart technology. Therefore, it is independent of the Java version installed in the user’s computer.

The 32 bit standalone version is no longer provided.

4 Troubleshooting

Symptom	Possible causes	Measure
ComTrader does not start over a desktop link	Miscellaneous	- Start ComTrader via the URLs described in chapter Starting ComTrader and Getting Connected - Or download and start the standalone version (see Using a Standalone Version)
The Java Plugin does not start, instead an .jnlp file is downloaded	The Java Plugin is not correctly installed	- Verify the Java Plugin version and installation according to section Java Plugin Settings
The Java Plugin starts, but immediately shows an error. ComTrader does not start.	The application cannot be downloaded or saved.	- Ensure that you have write access to the temporary cache location and that the disk is not full. - Ensure that the downloaded jar archive was not changed by an internal virus scanner.
ComTrader starts, but login is denied with error message	Connection to AMQP-Broker cannot be established.	- Check the security settings of the Java plugin (see Java Plugin Settings) - Check the proxy settings in ComTrader application according to chapter Proxy Server information
At the start of the application only the Java logo is shown, and the application does not start	The user has used the wrong "bit version" or does not have enough memory	- Use a different "version" (see Using a Standalone Version) - Or use more memory (see Using a Standalone Version)

1. <http://www.oracle.com/technetwork/java/javase/certconfig-2095354.html>. JavaFX for Linux requires gtk2 2.18+. ↩
2. If a standalone package(s) are part of delivery configuration. ↩
3. Java Web Start technology enables Java software applications to be run with a single click over the internet. It ensures that the most current version of the application will be run. ↩
4. See the document "Environment details". ↩
5. For Internet Explorer: Tools -> Internet Options => Connections => LAN Settings ↩