TimeSync 4

TIMESYNC 4 INSTALLATION AND CONFIGURATION MANUAL

TimeSync 4

CONTENTS

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INTRODUCTION

TimeSync is an application and service for Windows that uses a local or internet time source to set the time on a computer or a network.

FEATURES

- Easy to install and setup

- Synchronises time on a computer or server from a local or internet time source

- Can provide activity logs to file, syslog and event log with options available for level of logging required

- Can adjust how often the service sets the time

- Customisable settings for how to correct the time if it is incorrect

- Email alerts when synchronisation is lost via SMTP

- Displays statistics of the current time source

- Option to set the server or computer as an NTP server

- Export and Import configuration for backup and restore

- Compatible with Windows 8 and Windows Server 2012

- Install on Domain Controllers without disabling W32Time

- Command Line option to import settings into TimeSync upon install (for Automated Installs)

- Install on Windows Server Core

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INSTALLATION

Upon installing the TimeSync application, you will be prompted to disable Win32 time. Please note: You should <u>not</u> disable Win32 time, but you should prevent it from setting the time on your computer.

SUPPORTED OPERATING SYSTEMS

Desktop OS

- **Windows XP – 32 bit**
- **Windows Vista – 32 and 64 bit**
- **Windows 7 – 32 and 64 bit**
- **Windows 8 – 32 and 64 bit**

Server OS

- **Windows Server 2003 – 32 and 64 bit**
- **Windows Server 2008 – 32 and 64 bit**
- **Windows Server Core 2008 – 32 and 64 bit**
- **Windows Server 2008 R2 – 64 bit**
- **Windows Server Core 2008 R2 – 64 bit**
- **Windows Server 2012 – 64 bit**
- **Windows Server 2012 – 64 bit**

SYSTEM REQUIREMENTS

- **Processor: 400 MHz Pentium processor or equivalent (Minimum); 1GHz Pentium processor or equivalent (Recommended)**
- **RAM:96 MB (Minimum); 256 MB (Recommended)**
- **Hard Disk: Up to 5MB required for the application and up to 500 MB of available space may be required due to .NET 3.5 included as a dependency**
- **CD or DVD Drive: Not required**
- **Display: 800 x 600, 256 colours (Minimum); 1024 x 768 high colour, 32-bit (Recommended)**
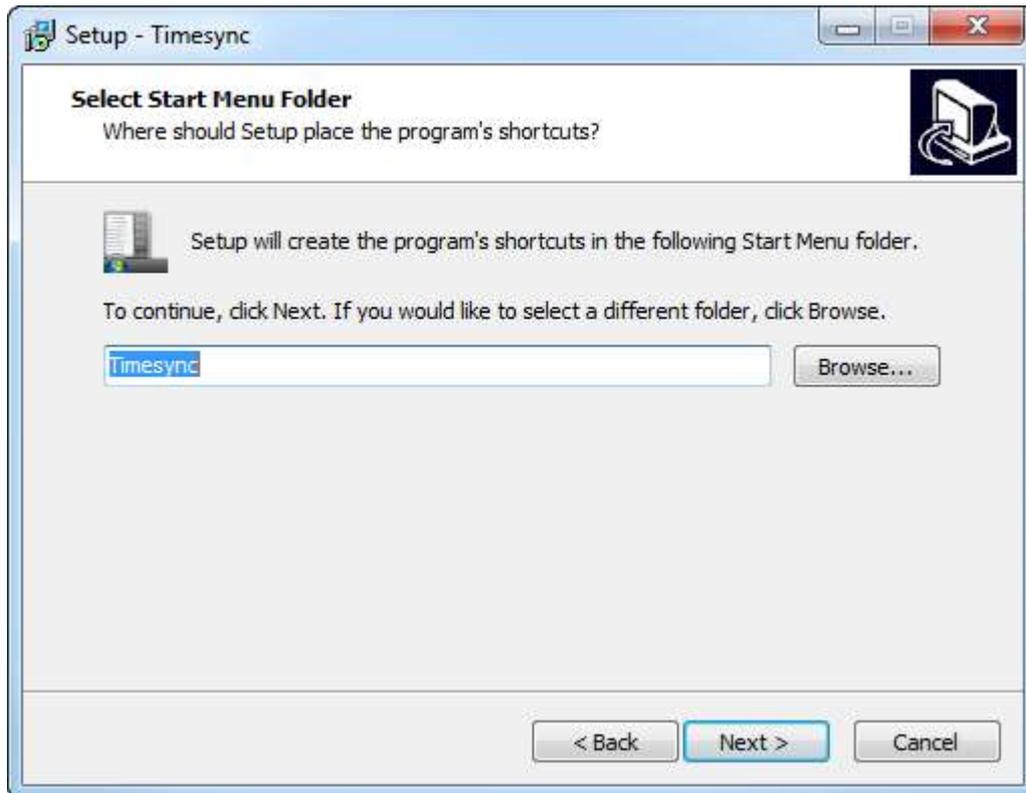
APPLICATION INSTALLATION

Run the Installation file, 'setup64.exe' for 64 bit systems and 'setup32.exe' for 32 bit systems.
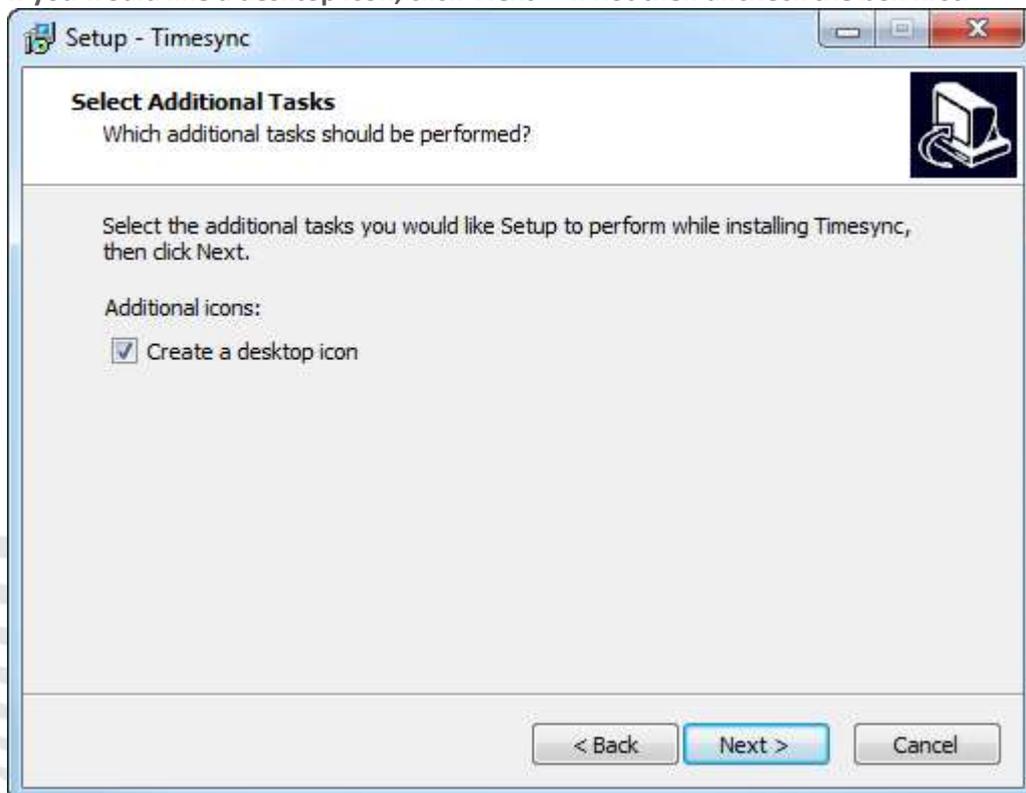Click 'Next >' to continue.

If you are happy with folder name for the Start Menu, then click 'Next >'
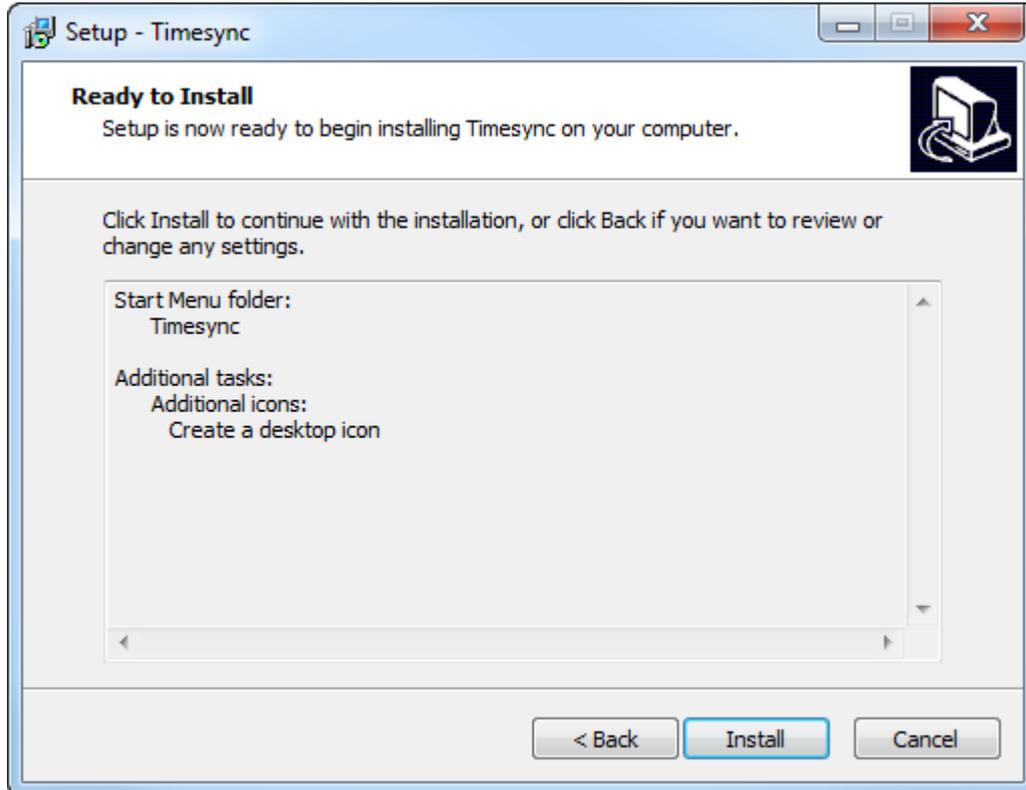
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Setup - Timesync

Select Start Menu Folder
Where should Setup place the program's shortcuts?

Setup will create the program's shortcuts in the following Start Menu folder.

To continue, click Next. If you would like to select a different folder, click Browse.

Timesync   Browse...

< Back   Next >   Cancel

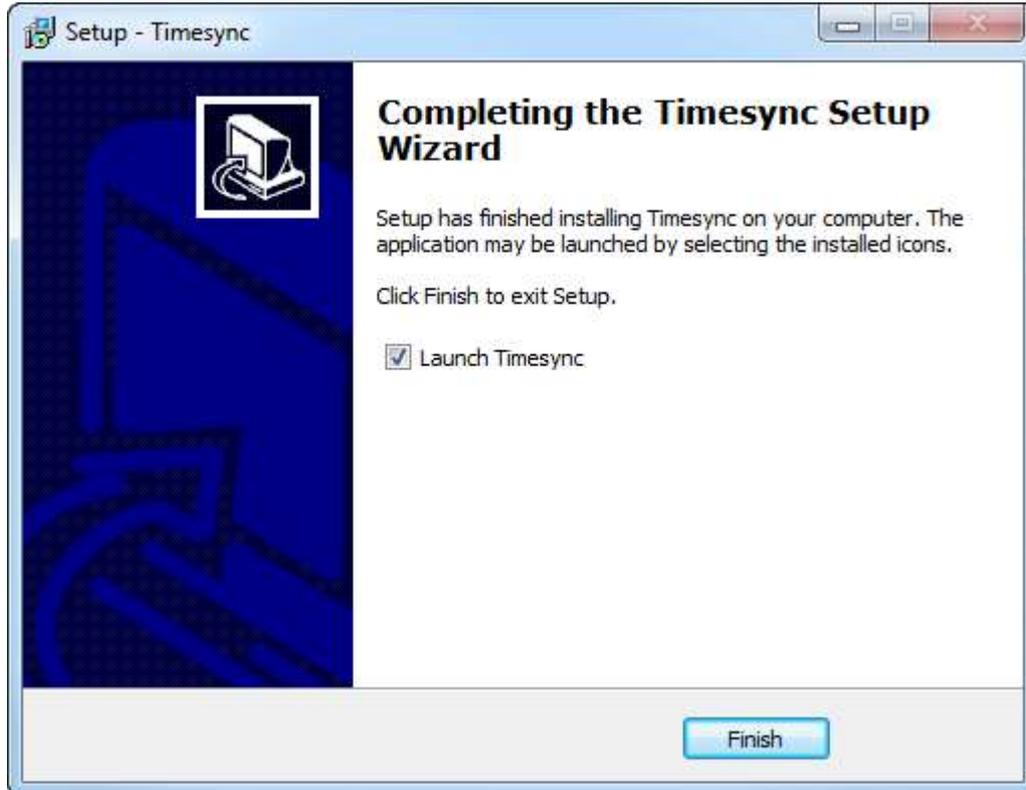**If you would like a desktop icon, click 'Next >' if not then uncheck the box first.**

Setup - Timesync

Select Additional Tasks
Which additional tasks should be performed?

Select the additional tasks you would like Setup to perform while installing Timesync, then click Next.

Additional icons:

☑ Create a desktop icon

< Back   Next >   Cancel

If you are happy with the selections and options, click 'Install.'

The Install process will begin and .NET 3.5 and Visual C++ will also be installed as dependencies.
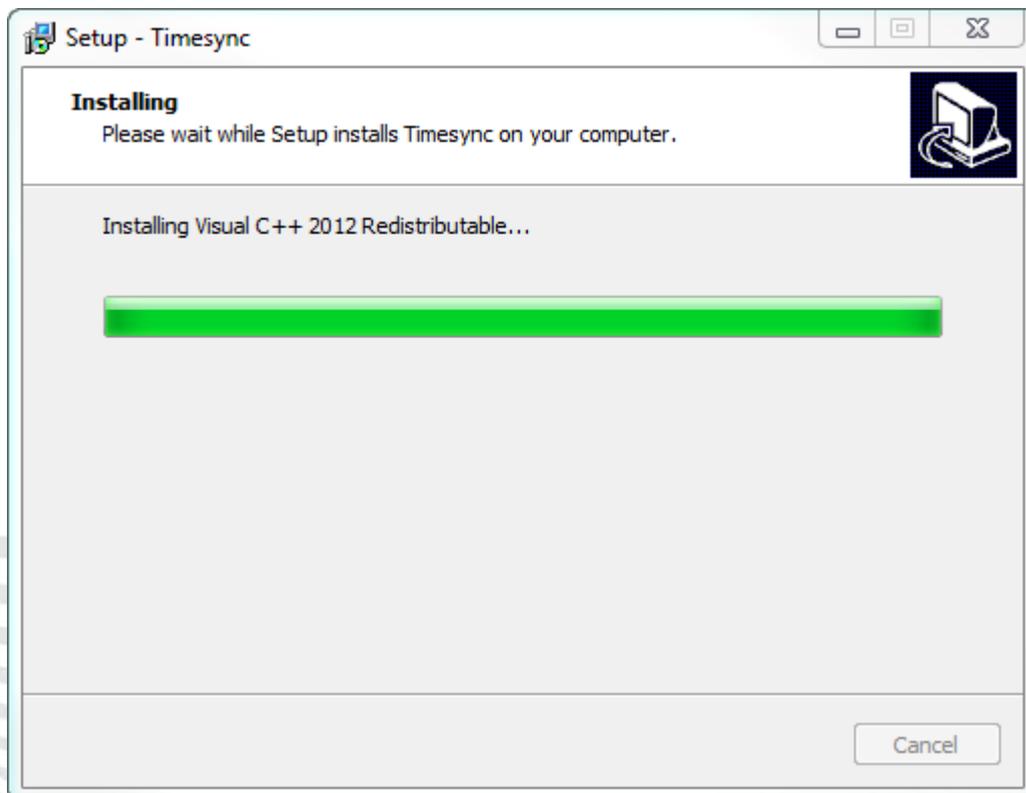
**Once the installation has finished you can launch the application straight away by clicking 'Finish'.**

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Setup - Timesync

Completing the Timesync Setup Wizard

Setup has finished installing Timesync on your computer. The application may be launched by selecting the installed icons.

Click Finish to exit Setup.

☑ Launch Timesync

Finish

TimeSync

| Main | Settings | Setting the Time | Alerts | Information | NTP Server | Import/Export | About |

Servers

Protocol:

Address:

Last Sync:

Add   Remove

Start Service

Stop Service

OK   Cancel   Apply   Help

---

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SERVER CORE INSTALLATION

Launch or start PowerShell and install the .NET Framework with the following command:

Install-WindowsFeature -name Net-Framework-Core

Once this has installed exit PowerShell.
Run the Installation file, 'setup64.exe' for 64 bit systems and 'setup32.exe' for 32 bit systems from its saved location.
The GUI installer will start and follow the 'Application Installation' instructions.
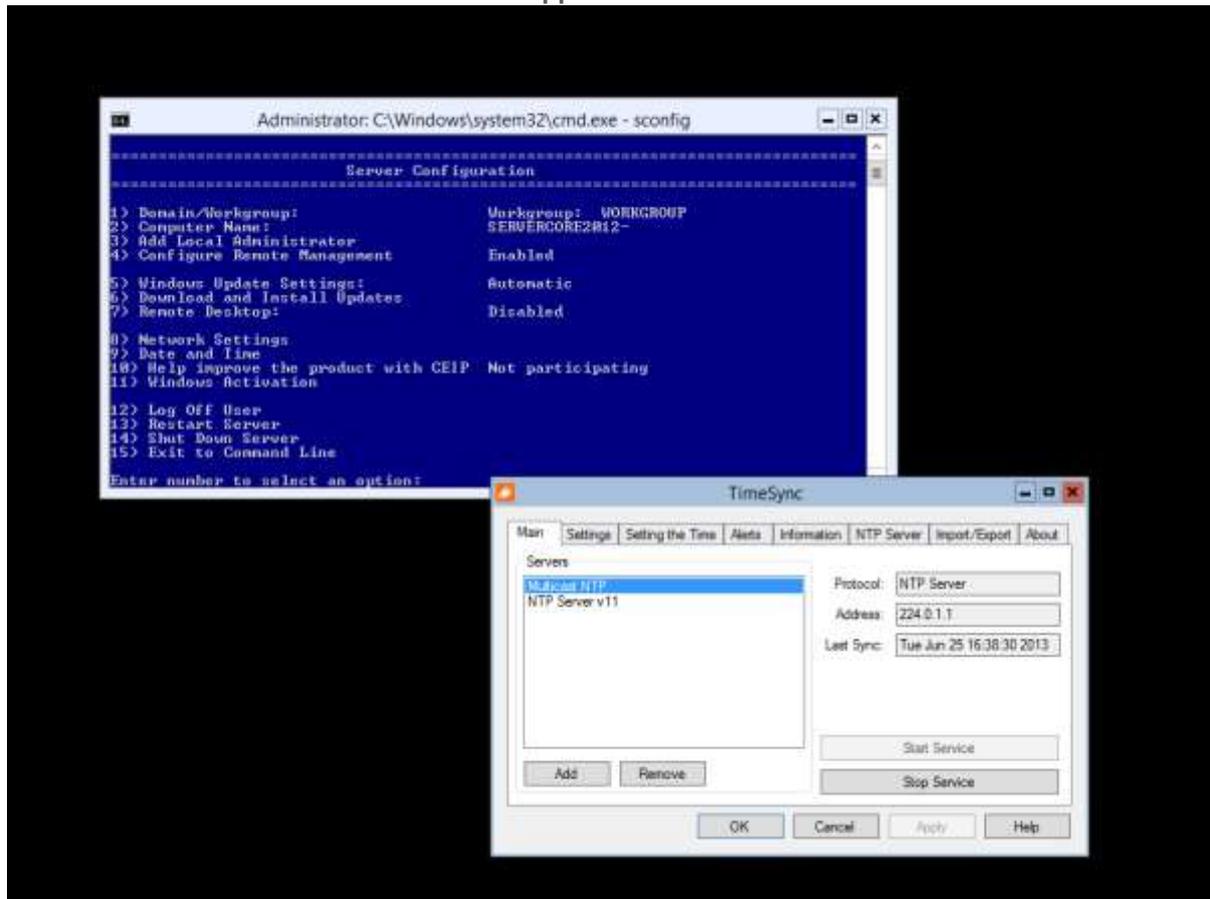
UNATTENDED INSTALLATION

Launch Command Prompt and run the Installation file, 'setup64.exe' for 64 bit systems and 'setup32.exe' for 32 bit systems from its saved location.

You can add arguments to the command to customise the install process. The recommended arguments are below:

/config=<location of xml file exported from timesync> = Specifies the configuration file to import

/SP- = supresses the 'do you want to install...' messages

/verysilent = Makes the installer very silent. Will not show any messages or dialog boxes

/SUPPRESSMSGBOXES = Supresses the message boxes

/norestart = Will not restart the PC if one is required

The config argument allows you to specify a config file to automatically add the configuration to the software. This requires setting up TimeSync on a single computer first and exporting the configuration. This makes it easier to add the same configuration to multiple computers on a network without having to configure them individually.

APPLICATION OVERVIEW

MAIN TAB

The Main Tab allows you to add different time sources to reference in order to set the time. This can be a local source, such as a GPS / Radio Clock or an Internal NTP Server, or an external source, such as an internet NTP Server. The information from each added source will be displayed on the right and you have the option to start or stop the TimeSync Service.
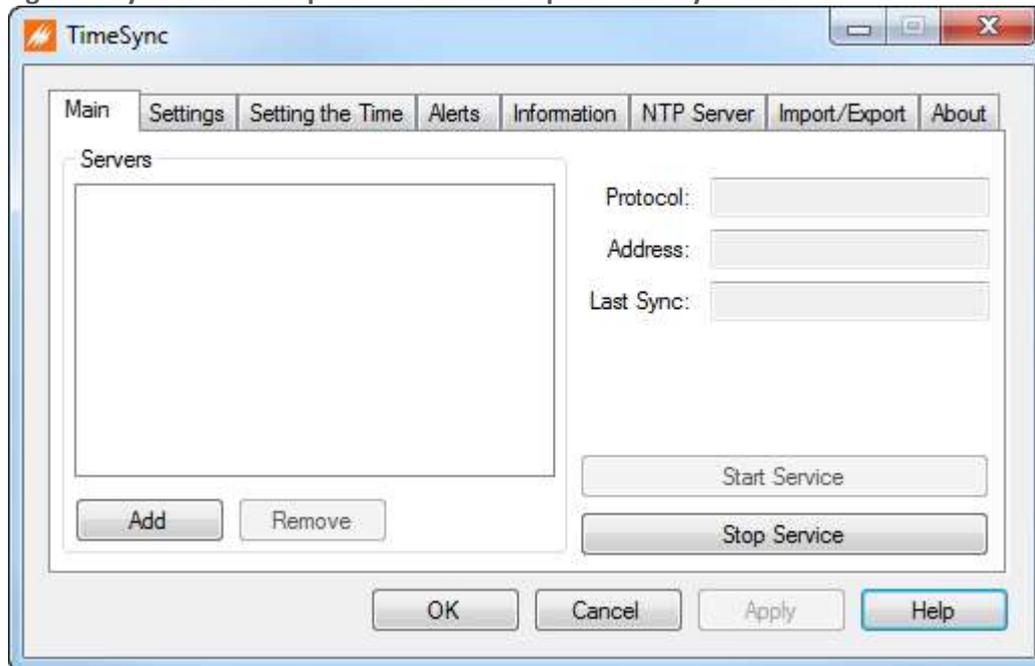
SETTINGS TAB

The Settings Tab allows you to set where the application sends logging information to. By default this is the computer or servers own Event Log.

You can choose log to a file on the computer in a location that you specify and/or to syslog if your network has a syslog server.

You also have the ability to choose what type of messages are logged.

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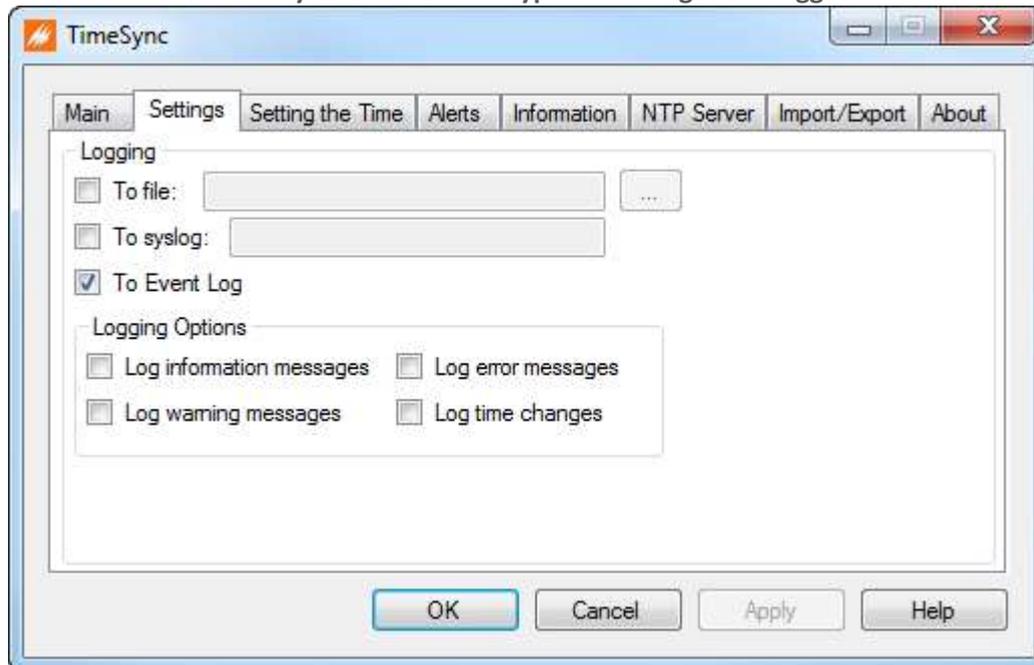
SETTING THE TIME TAB

The Setting the Time Tab allows you to configure the application to set the time as frequent of infrequent as required.

It also allows for you to set a maximum correction that the application is allowed to make should the time on the computer be incorrect.

The intervals parameter allows you to set the time intervals for the correction to be made every time the time is set.
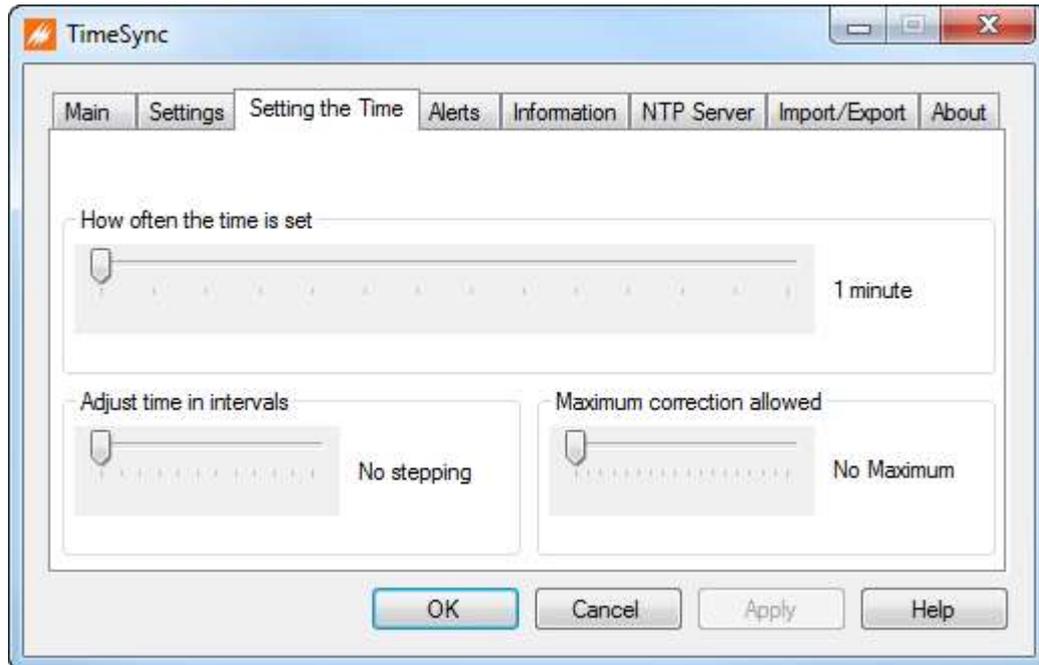
ALERTS TAB

The Alerts Tab allows you to configure the application to send an alert email to a specific individual if there is a loss of synchronisation. An SMTP enabled mail server is required for this.

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INFORMATION TAB

The Information Tab displays the current information about the time source and the last correction made to the computer.

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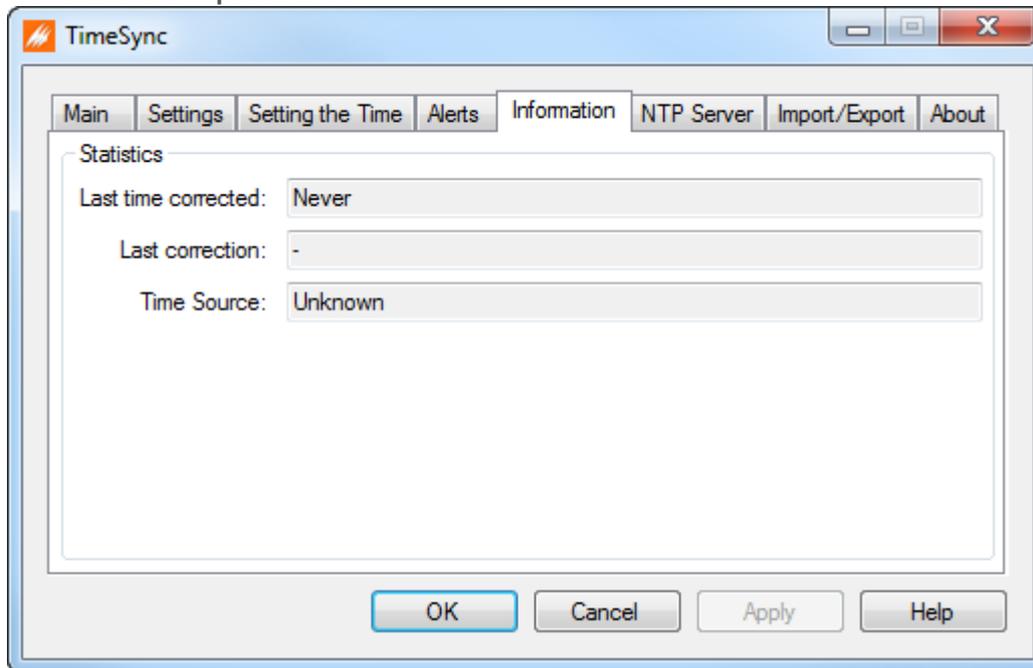
NTP SERVER TAB

The NTP Server Tab allows you to make the computer or server the application is running on into an NTP Server of a Stratum Level set by you.

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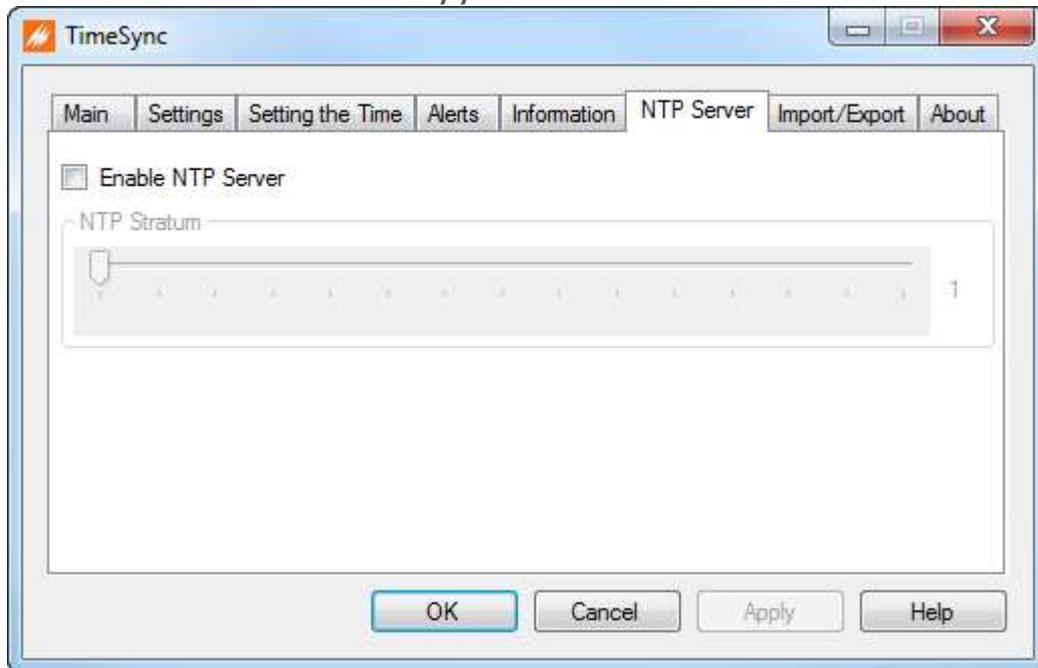
IMPORT/EXPORT TAB

The Import/Export Tab allows you to back up your configuration as a security measure and restore your configuration should anything happen to the application or the computer/server.
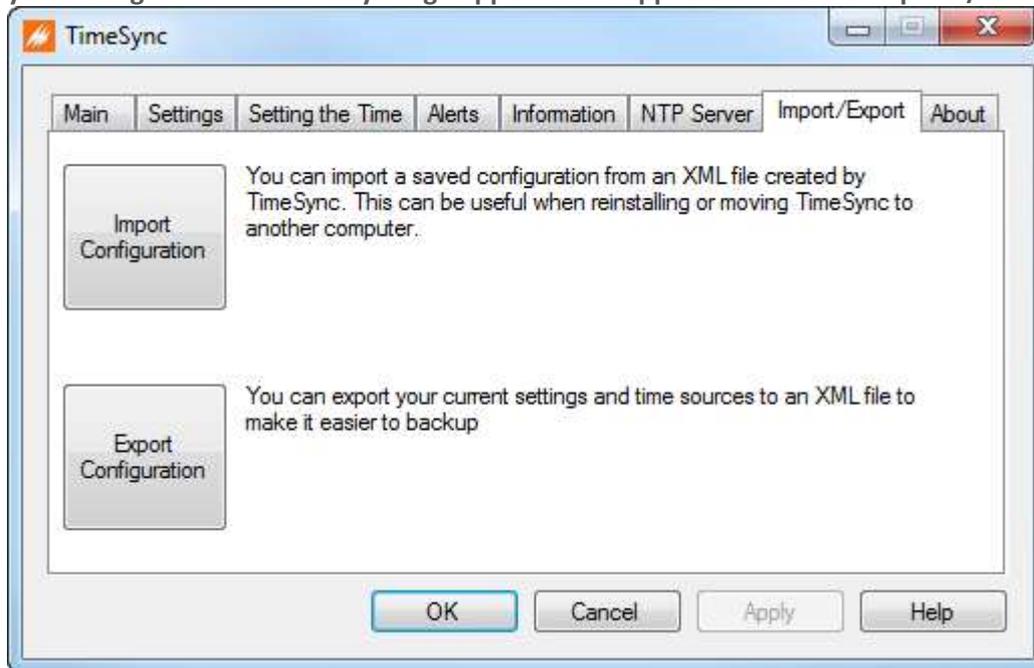
ABOUT TAB

The About Tab displays basic information about the application such as the version and build number. It also has links to the company website and the company support site should any support be required.
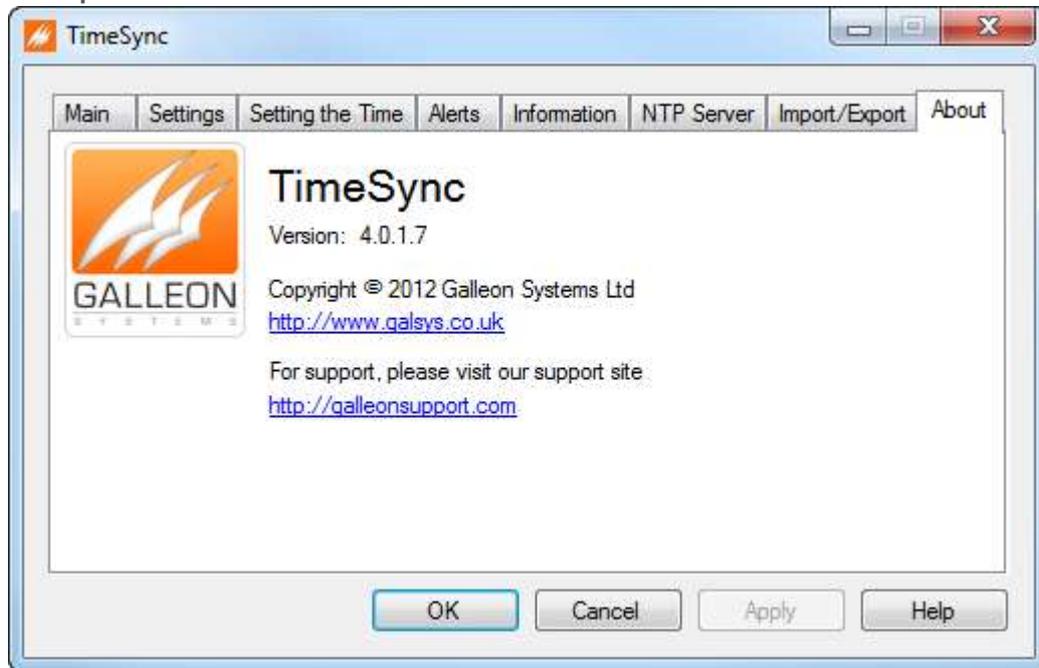
CONFIGURATION

MAIN TAB

The Main Tab is where you will need to add your time source for the service to use to set the time. You start this process by clicking the 'Add' button.
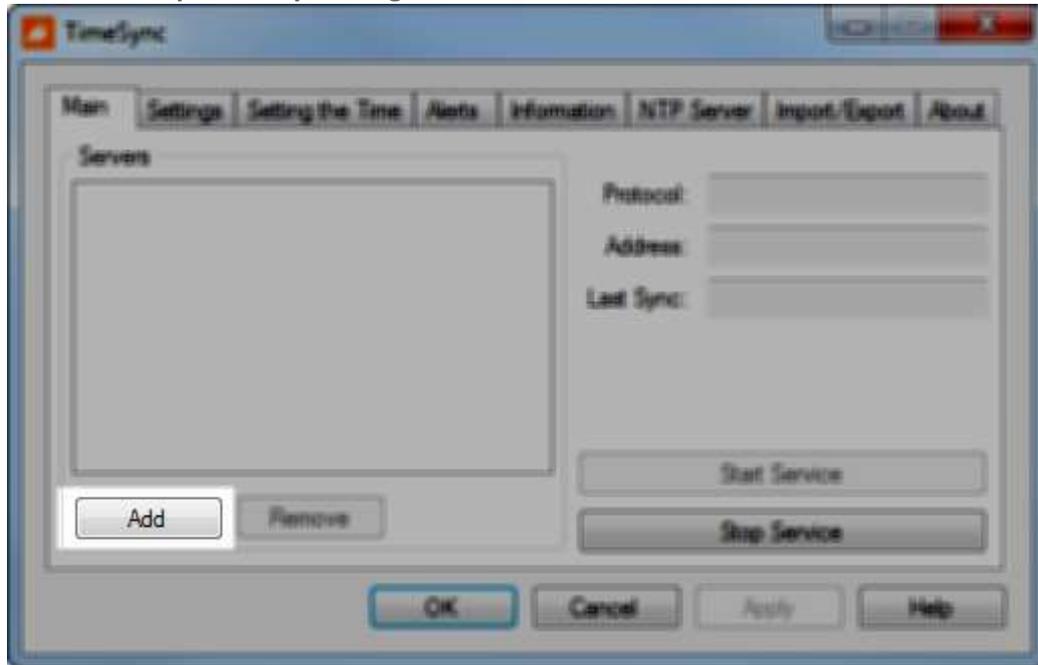
This will open a new little window for you to enter the details for the time source.
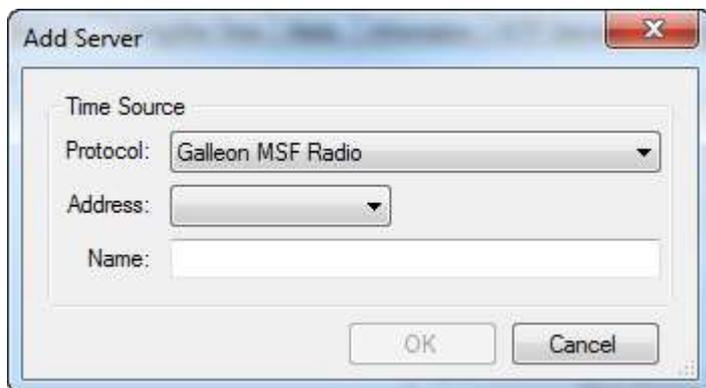
There are several options to choose from.
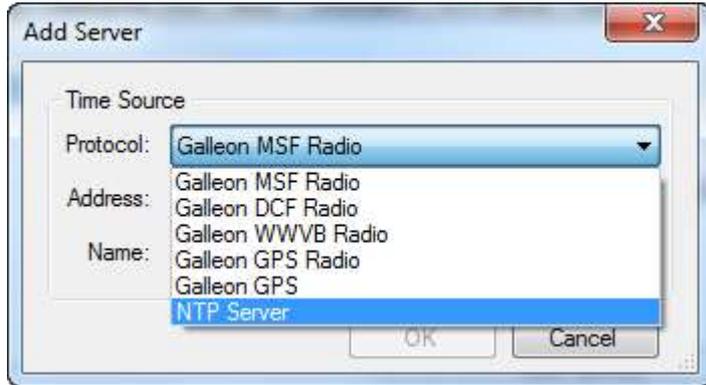
- **Galleon MSF Radio** – Used to synchronise the time from any of our MSF products (TS and AC product ranges)
- **Galleon DCF Radio** – Used to synchronise the time from any of our DCF products (TS and AC product ranges)
- **Galleon WWVB Radio** – Used to synchronise the time from any of our WWVB products (TS and AC product ranges)
- **Galleon GPS Radio** – Used to synchronise the time from the TS-700-GPS and TS-900-GPS products
- **Galleon GPS** – Used to synchronise the time from the remaining GPS products (TS and AC product ranges)
- **NTP Server** – Used to synchronise the time from an NTP Server on the network (NTS product range) or an external NTP Server located over the internet

If you have selected a Radio or GPS time source then make sure it is plugged into the computer or server and the COM port should already be selected, if not then choose it from the list. All that remains is to give it a name and click 'OK'.

If you have selected the NTP Server time source, simply type in the internal IP address of the server or the external name address of the internet server. All that remains is to give it a name and click 'OK'.
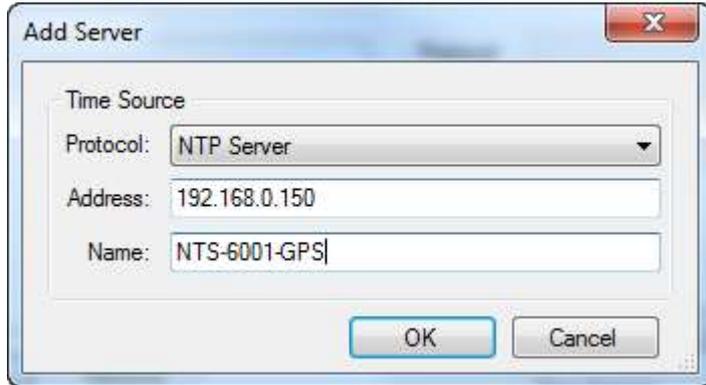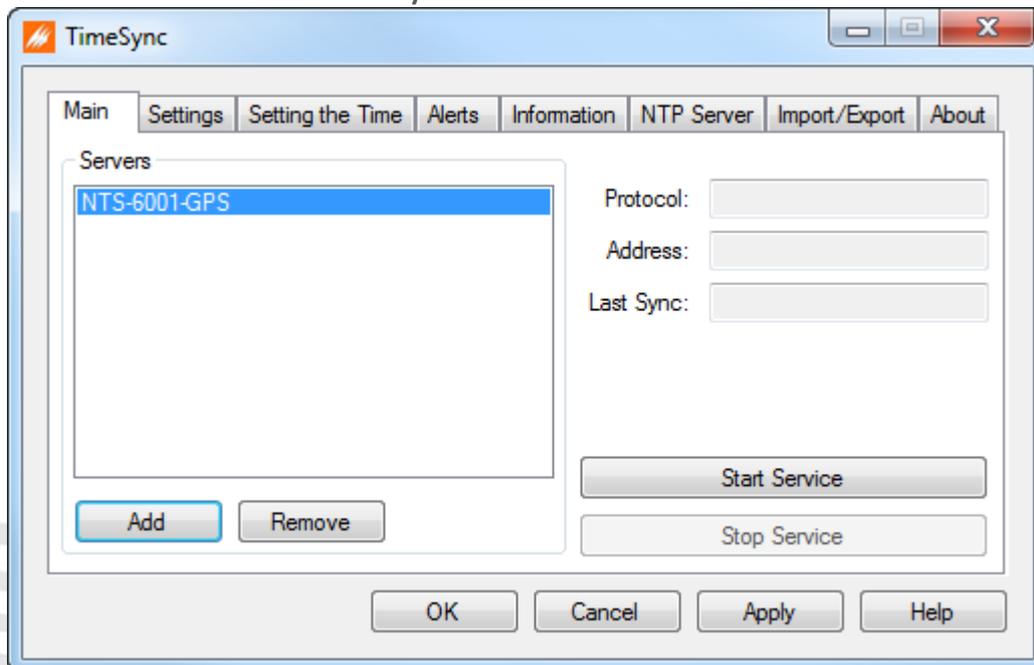
Add Server

Time Source

Protocol: NTP Server

Address: 192.168.0.150

Name: NTS-6001-GPS
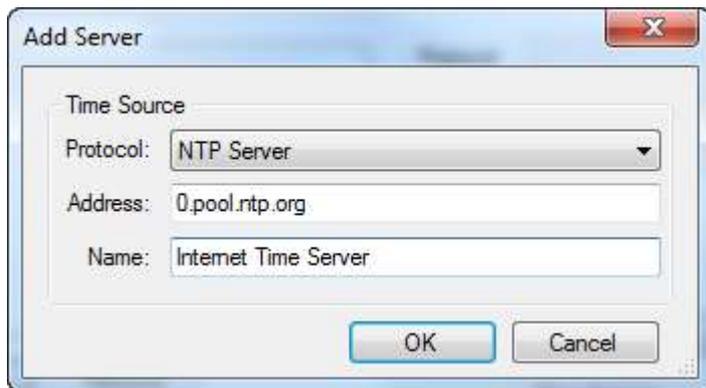
[OK] [Cancel]

Add Server

Time Source

Protocol: NTP Server

Address: 0.pool.ntp.org

Name: Internet Time Server

[OK] [Cancel]

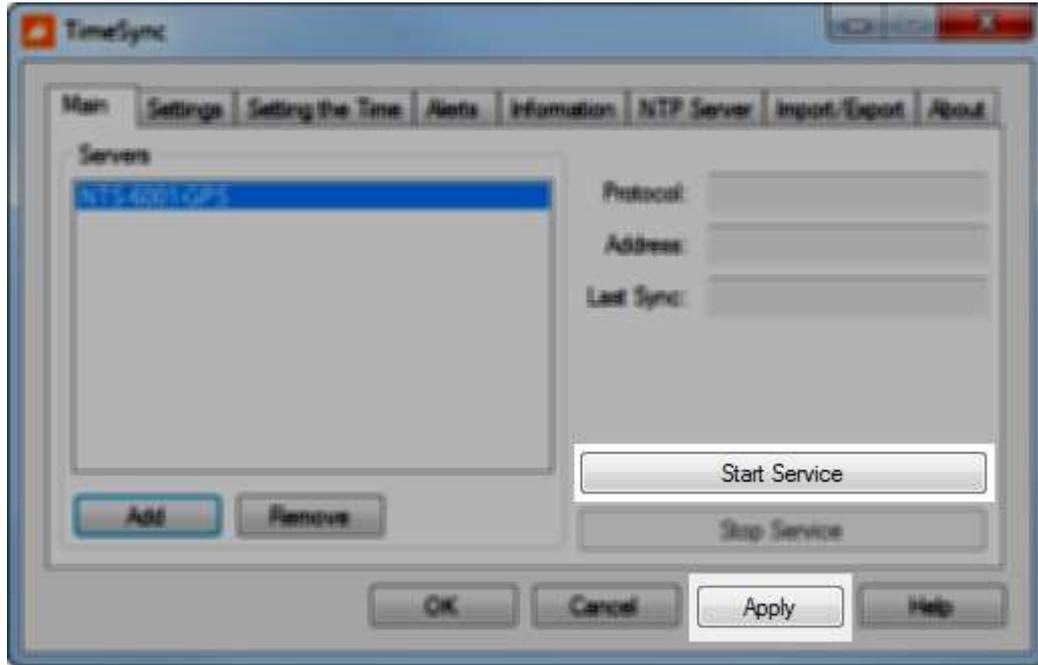**The Server will now be added to your list.**

TimeSync

Main | Settings | Setting the Time | Alerts | Information | NTP Server | Import/Export | About

Servers

NTS-6001-GPS

Protocol:

Address:

Last Sync:

[Add] [Remove]

[Start Service]

[Stop Service]

[OK] [Cancel] [Apply] [Help]

You can now start the service by clicking 'Start Service'. Click 'Apply' to apply and save the settings.
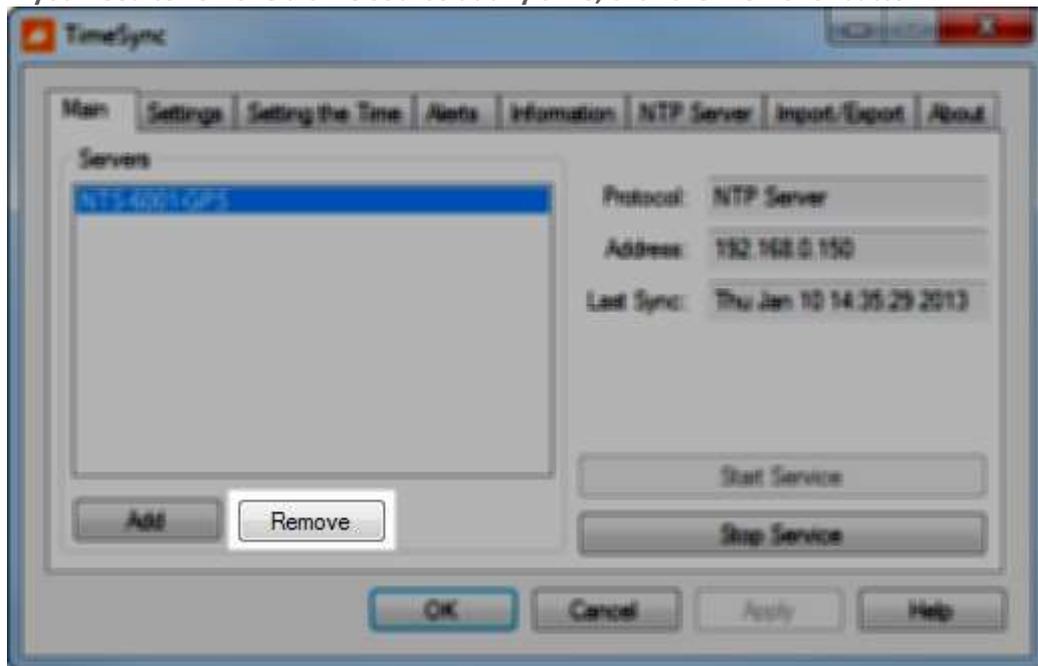
Once started, the service will start using the time source to synchronise and ascertain the time.
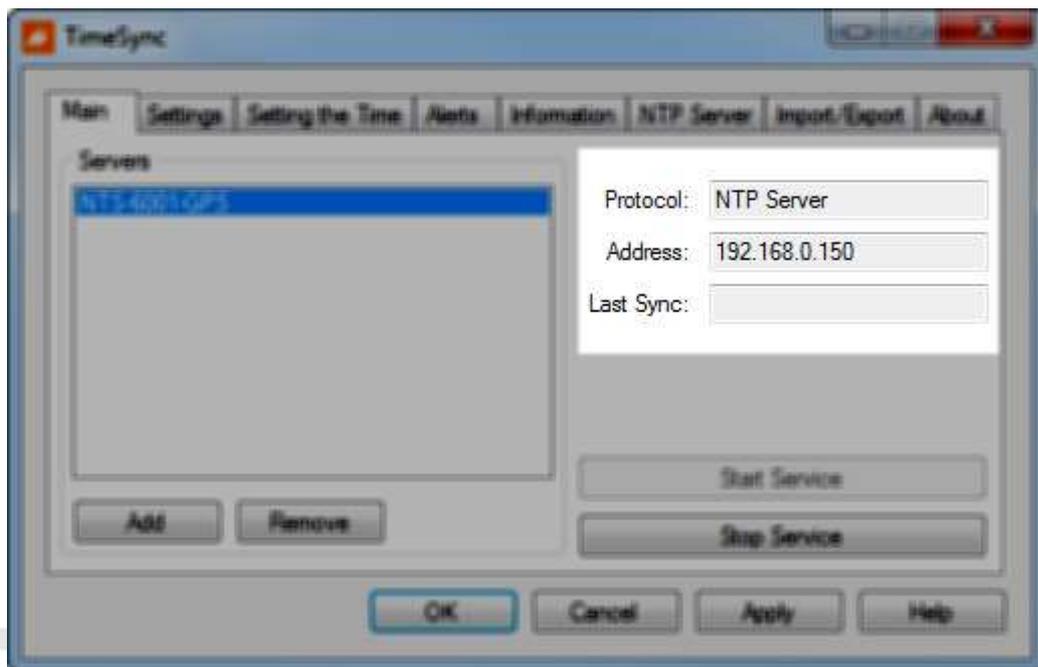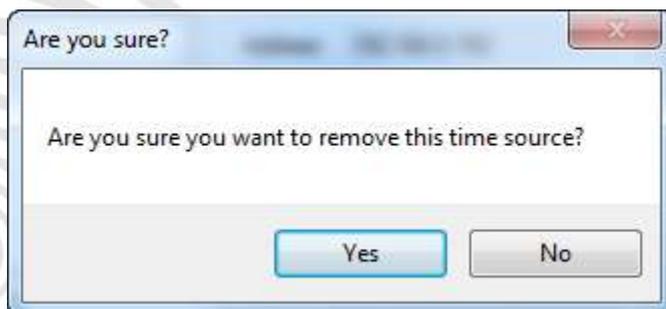

Once the time source has synchronised and the application has retrieved the time, the information will be displayed.
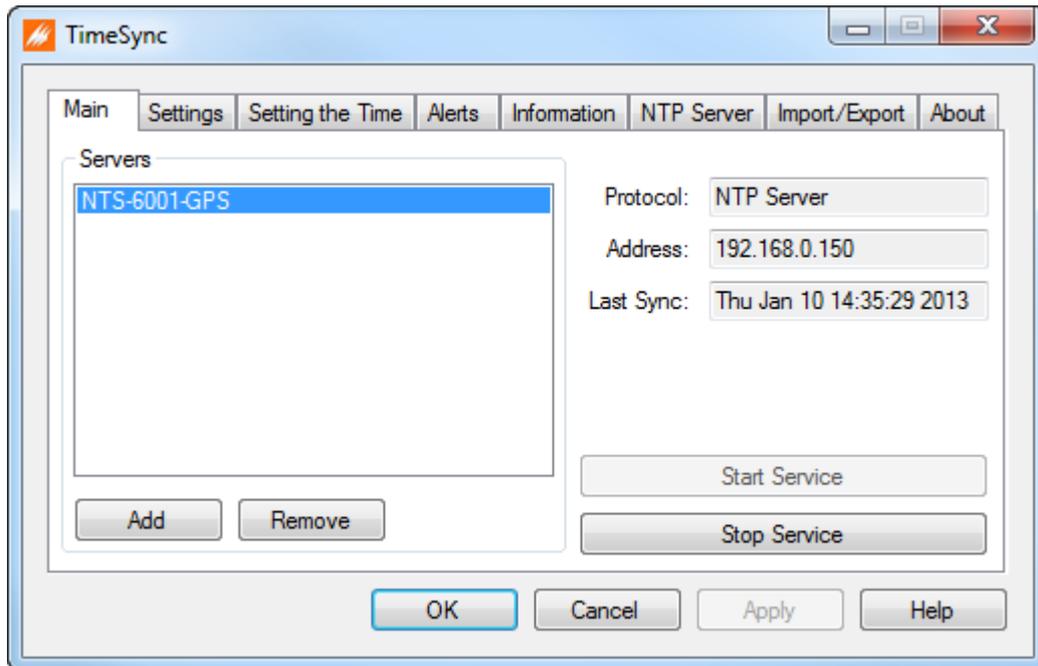
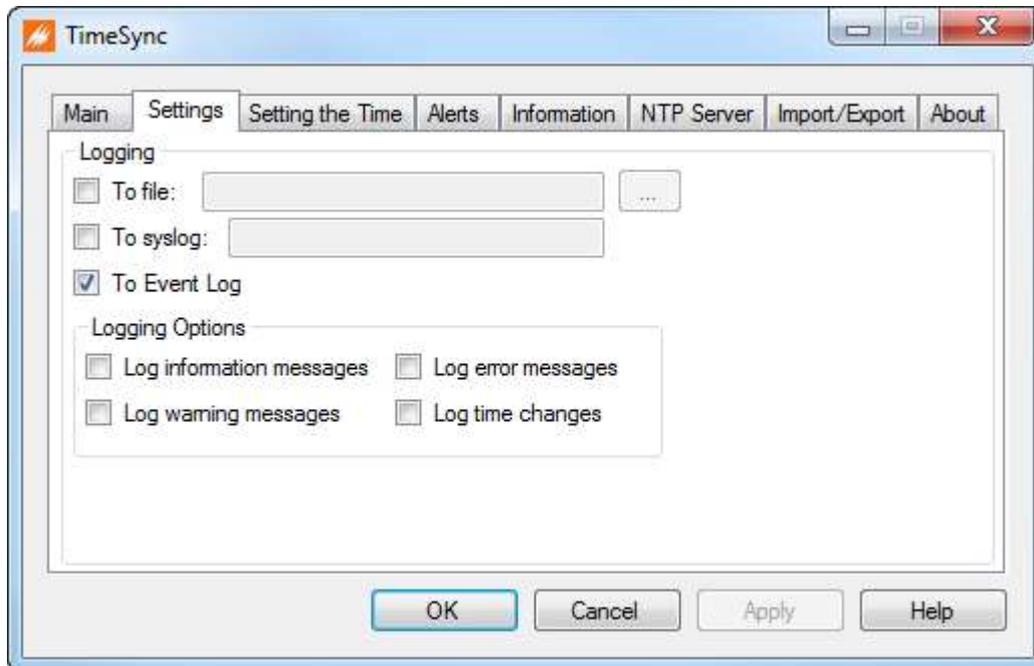If you need to remove a time source at any time, click the 'Remove' button.

This will open up a little pop-up, checking that you wish to complete this action. Clicking 'Yes' will complete the action and clicking 'No' will cancel the action.
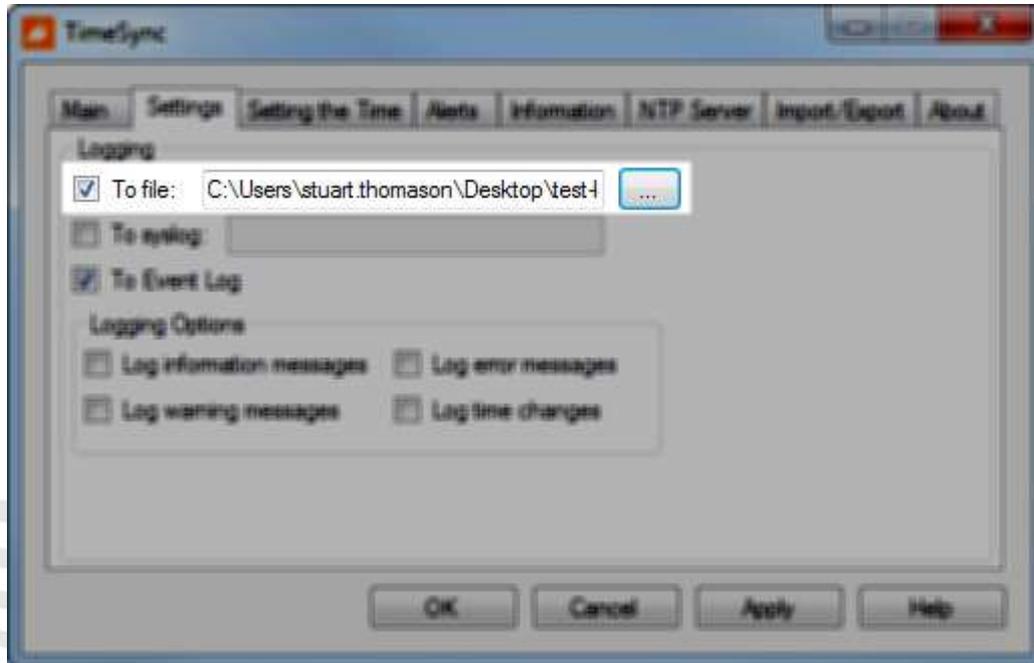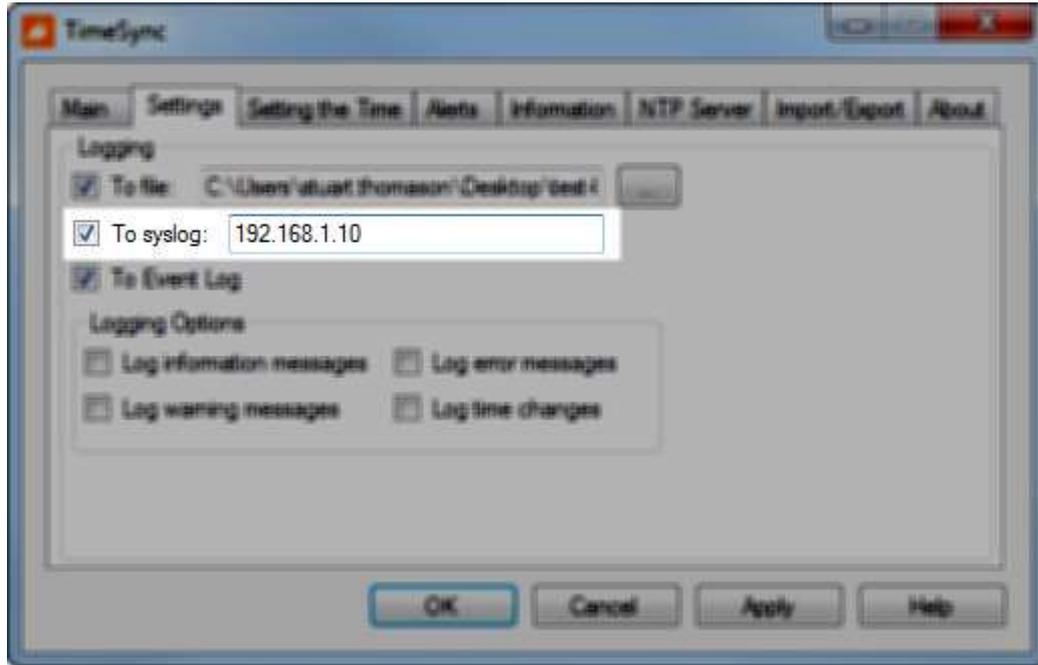
SETTINGS TAB

The Settings Tab is where you choose what messages to log and where to log them to.
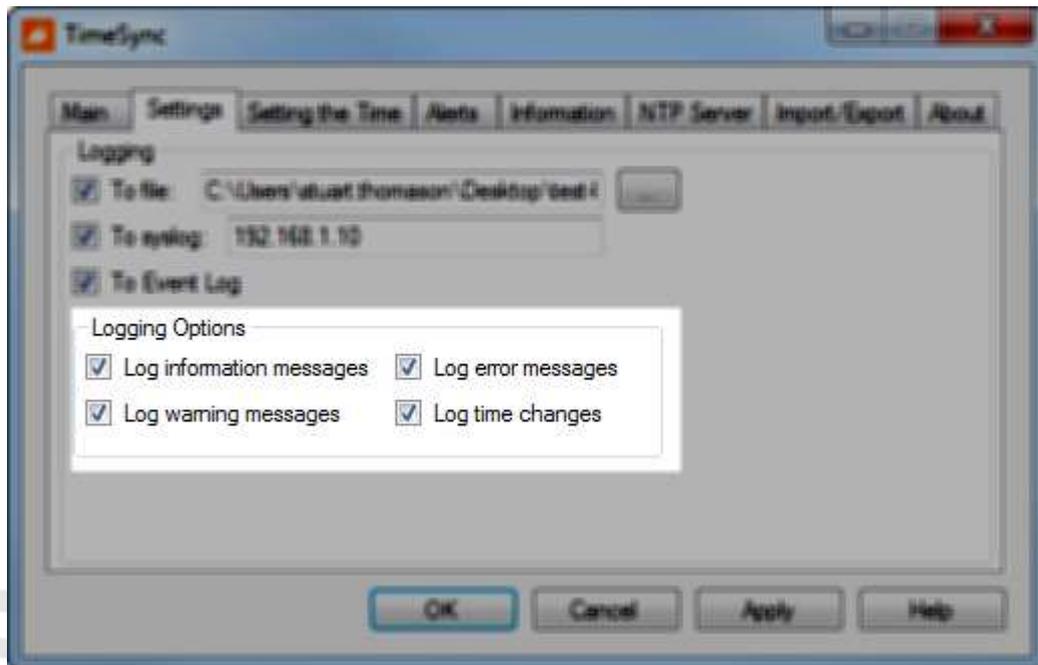**The Event Log is selected by default.**

To log to file, check the corresponding box and choose a location for the file to go.

To log to syslog, check the corresponding box and enter the IP address of the syslog server.

Select which type of message you would like to log to each destination by checking the corresponding boxes.

Clicking the 'Apply' button saves these settings.

SETTING THE TIME TAB

The Setting the Time Tab is where you adjust the frequency that the time is set on your computer as well as the maximum correction the application is allowed to make and the intervals at which the application can make any corrections.
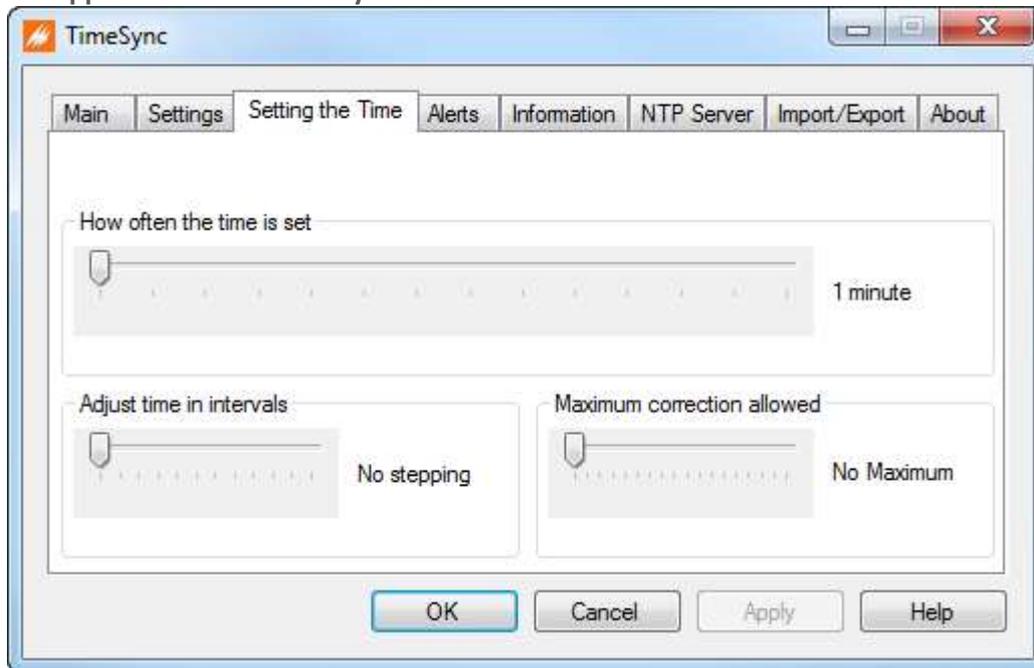
The frequency can be set at one of the following:

- 1 minute
- 2 minutes
- 5 minutes
- 10 minutes
- 15 minutes
- 30 minutes
- 1 hour
- 2 hours
- 6 hours
- 12 hours
- 1 day
- 1 week
- 2 weeks
- 4 weeks

The adjustment intervals can be set to one of the following:

- No stepping
- 1 millisecond
- 2 milliseconds
- 5 milliseconds
- 10 milliseconds
- 25 milliseconds
- 50 milliseconds
- 75 milliseconds
- 100 milliseconds
- 250 milliseconds
- 500 milliseconds
- 1 second

The maximum correction can be set to one of the following:

- No maximum
- 10 milliseconds
- 20 milliseconds
- 50 milliseconds
- 100 milliseconds
- 200 milliseconds
- 500 milliseconds
- 1 second
- 2 seconds
- 5 seconds
- 10 seconds
- 15 seconds
- 1 minute
- 2 minutes
- 5 minutes
- 10 minutes
- 30 minutes
- 1 hour

An example of this is if the time is wrong on your computer by 22 minutes, this is within a maximum correction of 30 minutes, and can be adjusted at intervals of 1 second when the time is set every minute.

The intervals setting is there for time sensitive systems that would crash (or similar) if the time changed too much in one adjustment. Most other scenarios would be perfectly fine with no stepping set.

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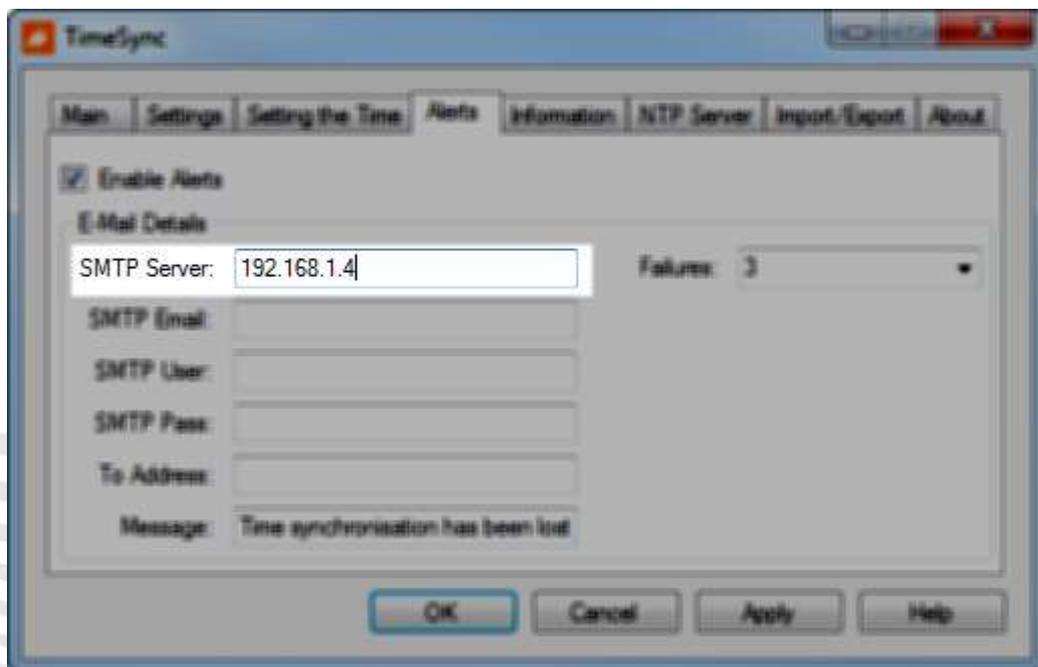FAX: +44 (0) 121 608 4477

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ALERTS TAB

The Alerts Tab is where you set the application to email an individual when a loss of synchronisation occurs. SMTP must be enabled on the email server that you wish to use.
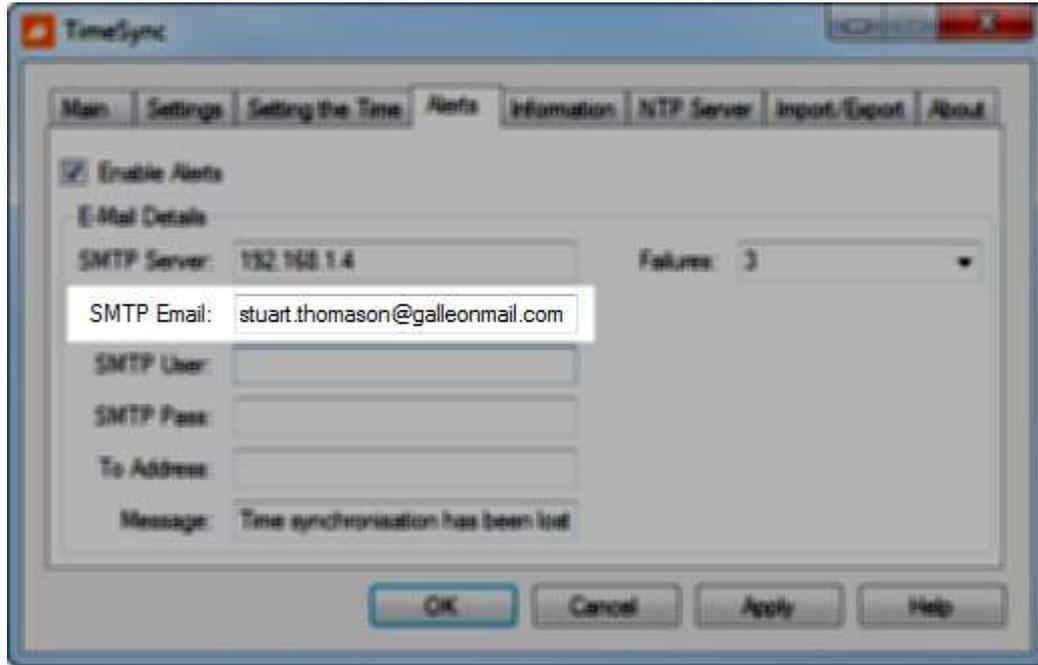This is disabled by default, but can be enabled by checking the box at the top of the tab.
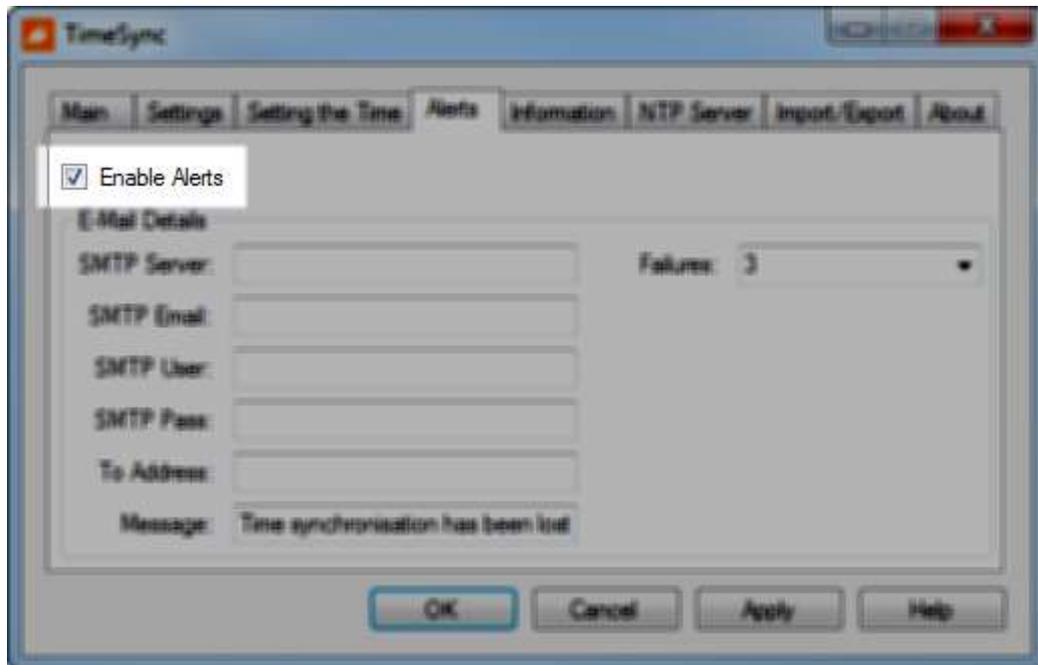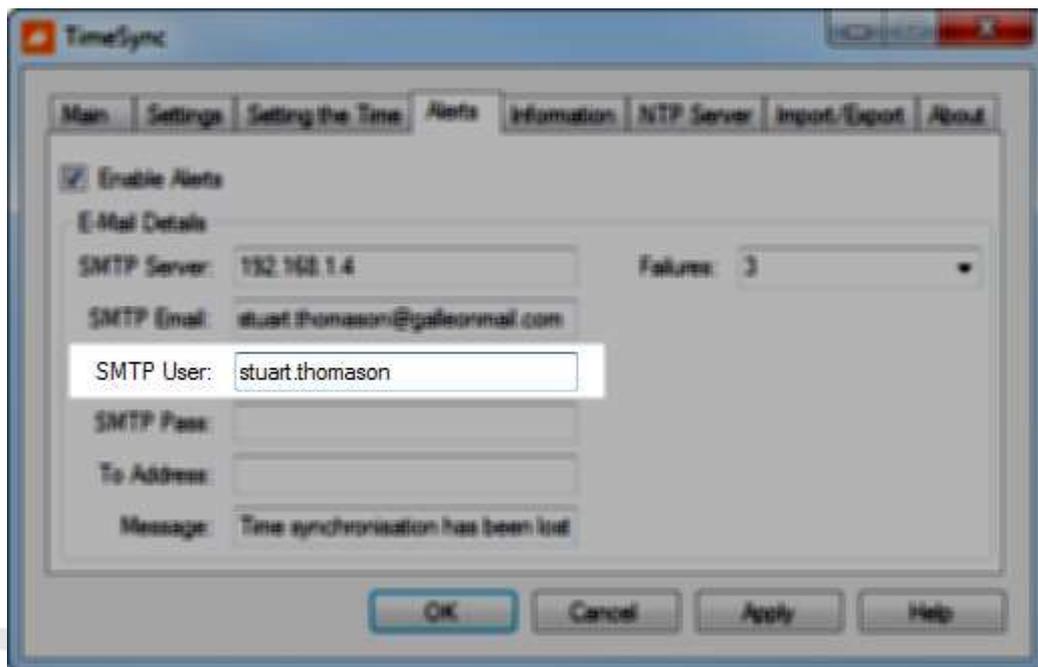

Start entering the information required with the SMTP Server address first.

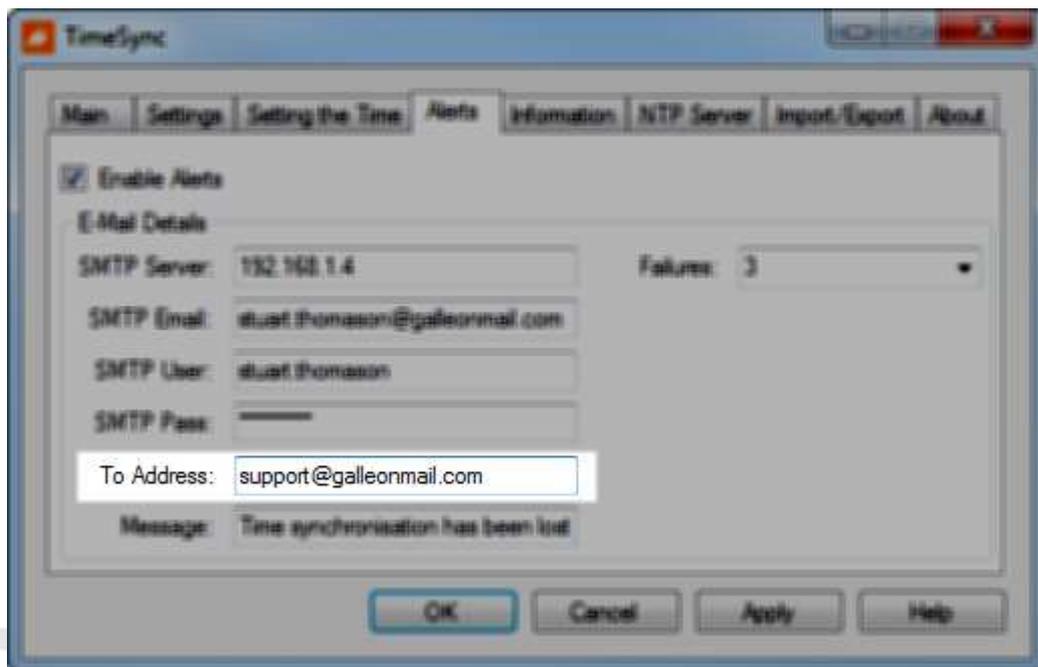Enter the email address of the user it is to be sent from.

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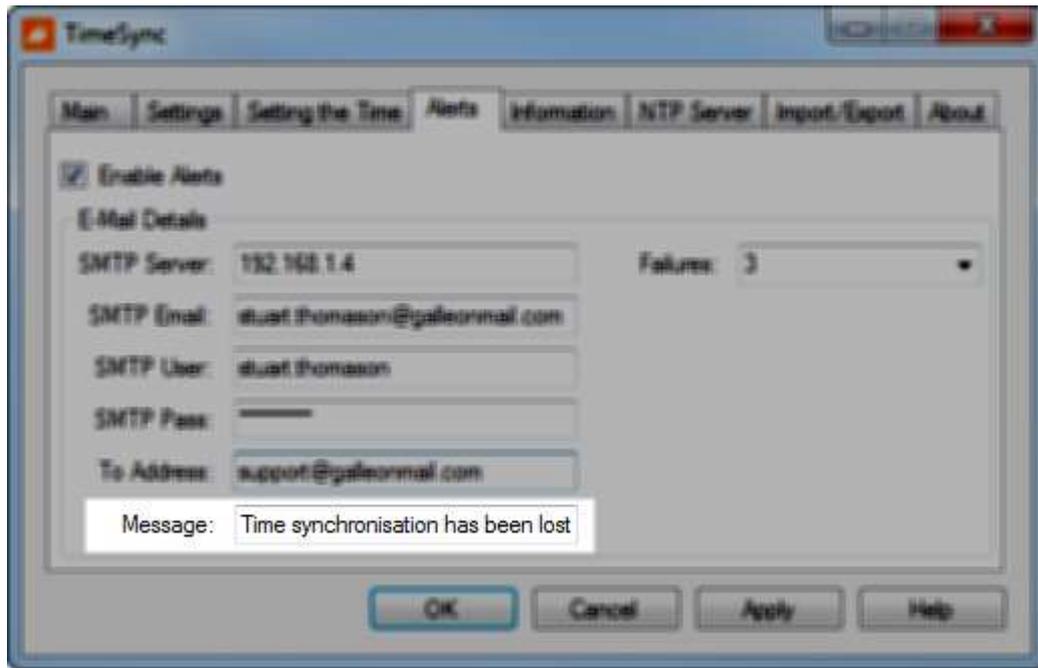
Enter the username for that account.

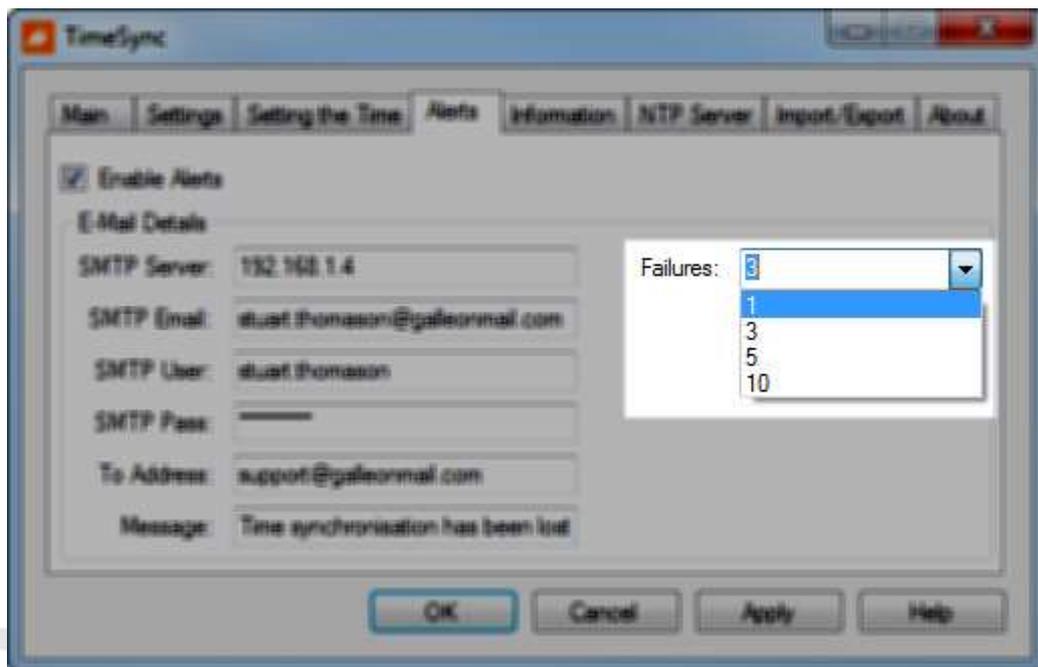Enter the password for that account.

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Enter the address the email will be sent to.

You can leave in the default message or customise it yourself.
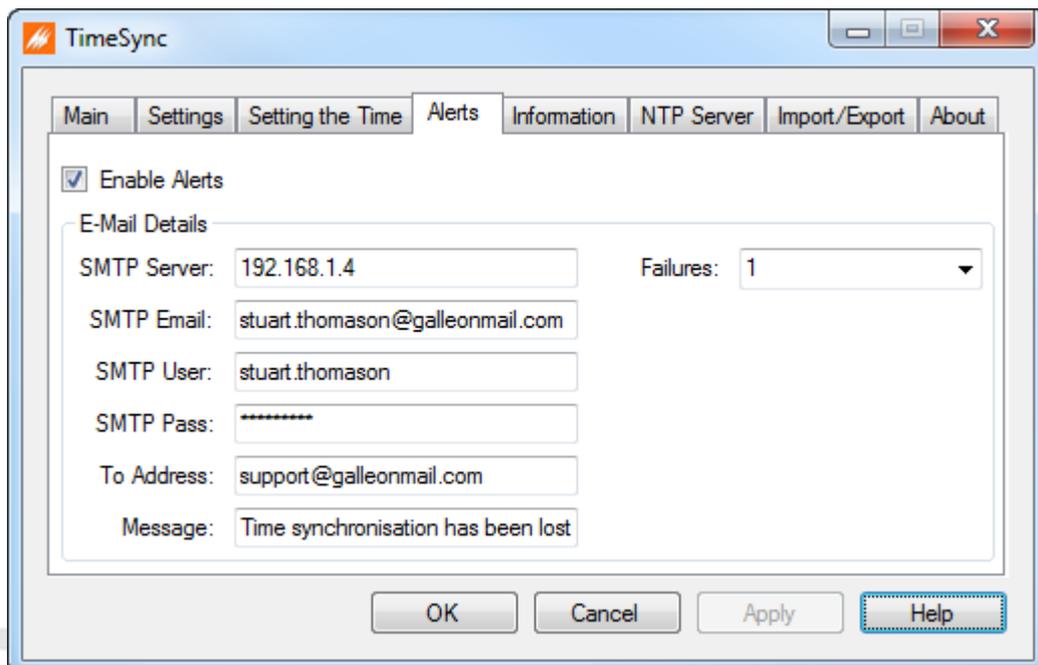
TimeSync 4

Select the number of failures allowed before the email is sent.

Once you are happy with the configuration, click the 'Apply' button to save the changes.
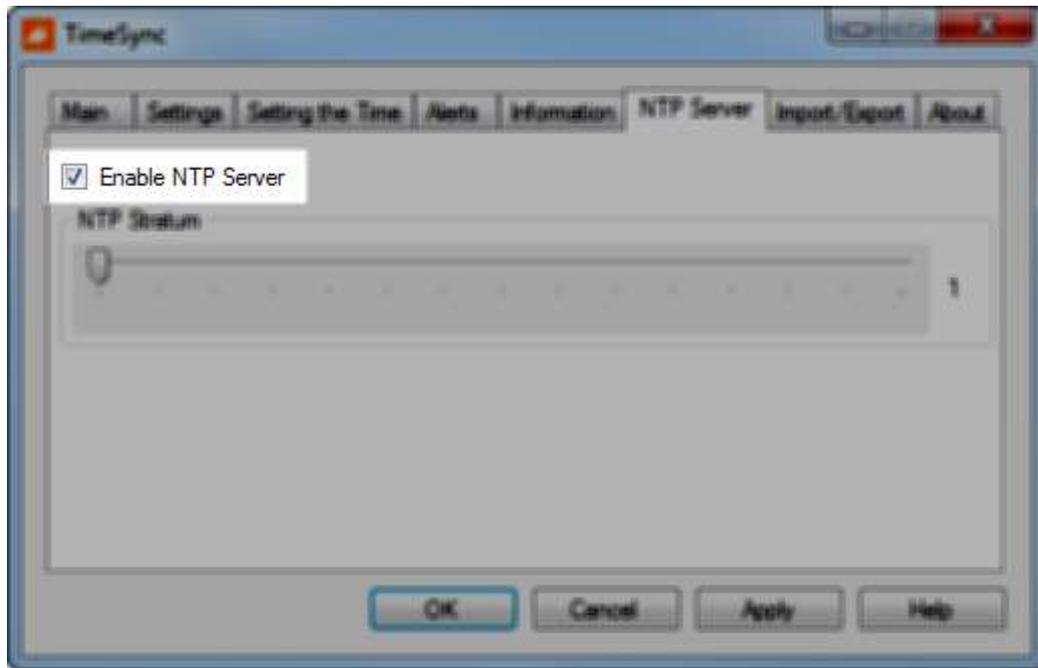
Your alerts are now set up so that you are alerted as soon as something goes wrong.
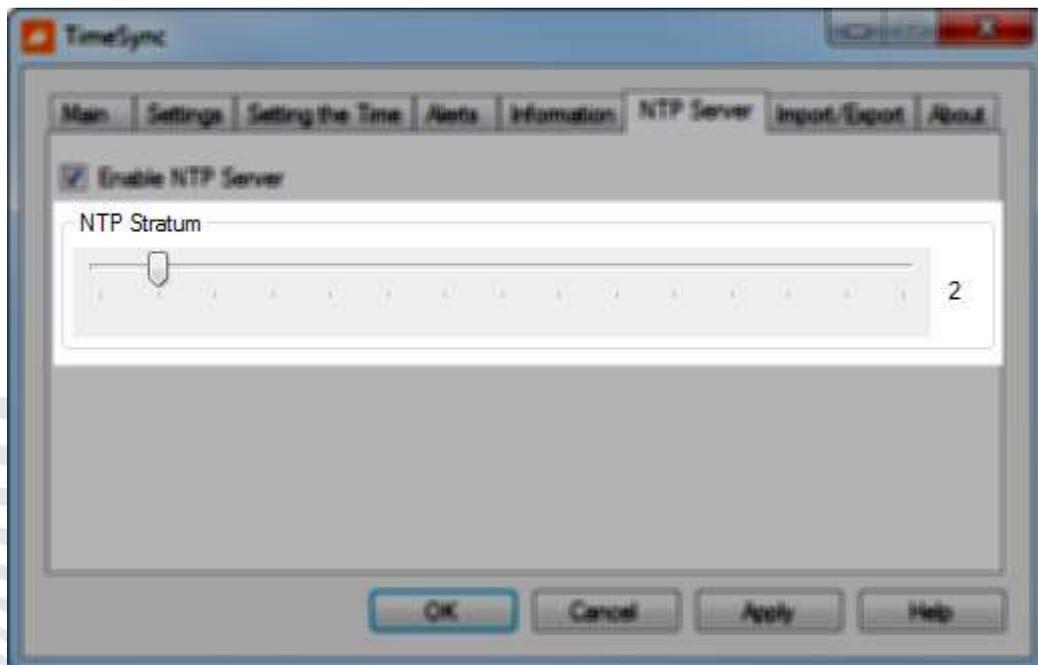
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NTP SERVER TAB

The NTP Server Tab is where you can set the computer or server to "act" like an NTP Server and allow NTP requests.

This is disabled by default, but can be enabled by checking the box at the top of the tab.
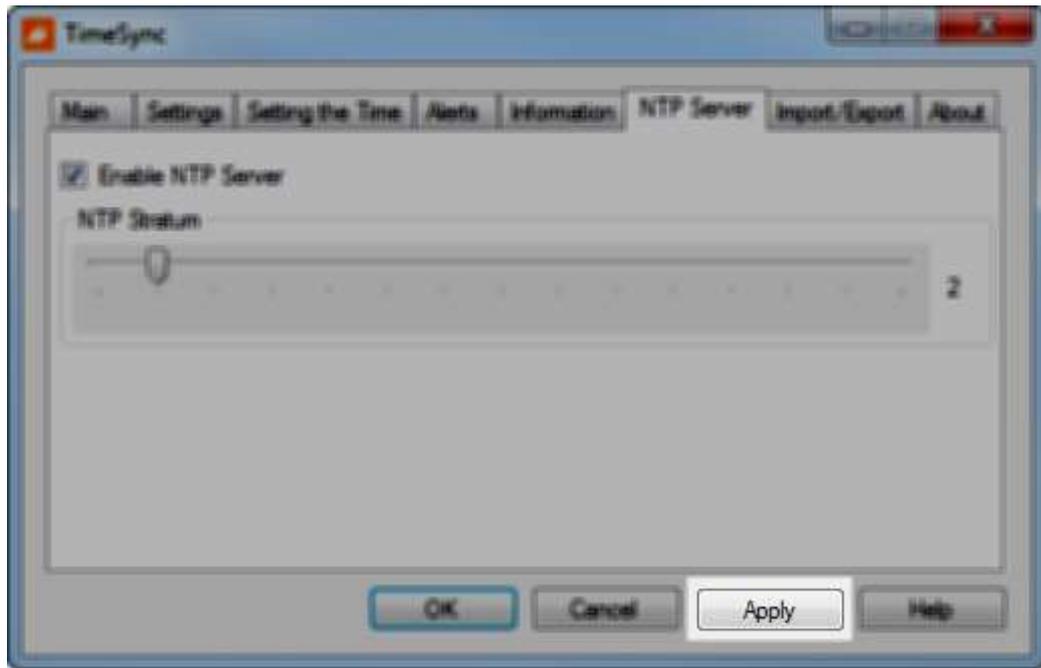

Set the Stratum Level you would like the computer to be equivalent to.

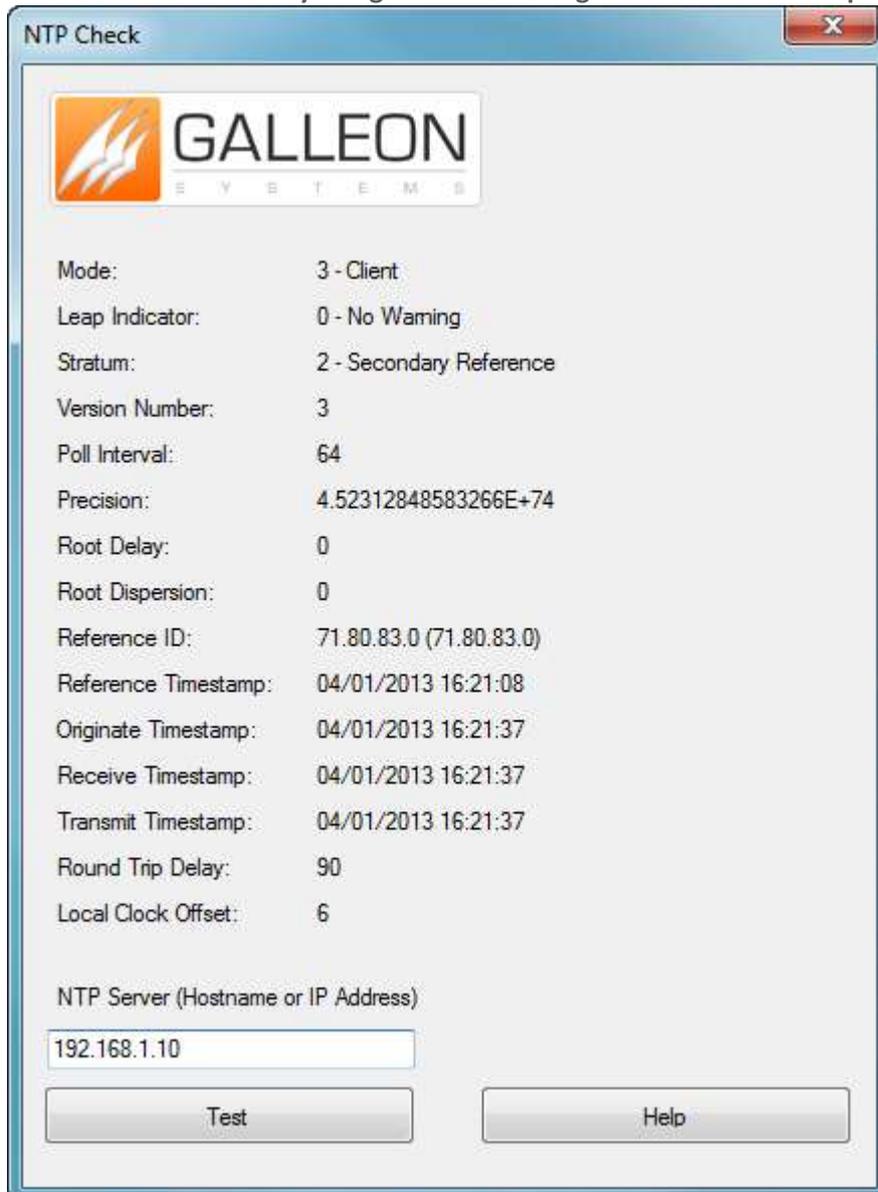Finally, click the 'Apply' button to save the changes.

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Your computer or server will now "act" like an NTP Server and accept NTP requests.

This can be confirmed by using an NTP checking tool on another computer on the network.

NTP Check

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|	
Mode:	3 - Client
Leap Indicator:	0 - No Warning
Stratum:	2 - Secondary Reference
Version Number:	3
Poll Interval:	64
Precision:	4.52312848583266E+74
Root Delay:	0
Root Dispersion:	0
Reference ID:	71.80.83.0 (71.80.83.0)
Reference Timestamp:	04/01/2013 16:21:08
Originate Timestamp:	04/01/2013 16:21:37
Receive Timestamp:	04/01/2013 16:21:37
Transmit Timestamp:	04/01/2013 16:21:37
Round Trip Delay:	90
Local Clock Offset:	6

NTP Server (Hostname or IP Address)

192.168.1.10

[Test]   [Help]

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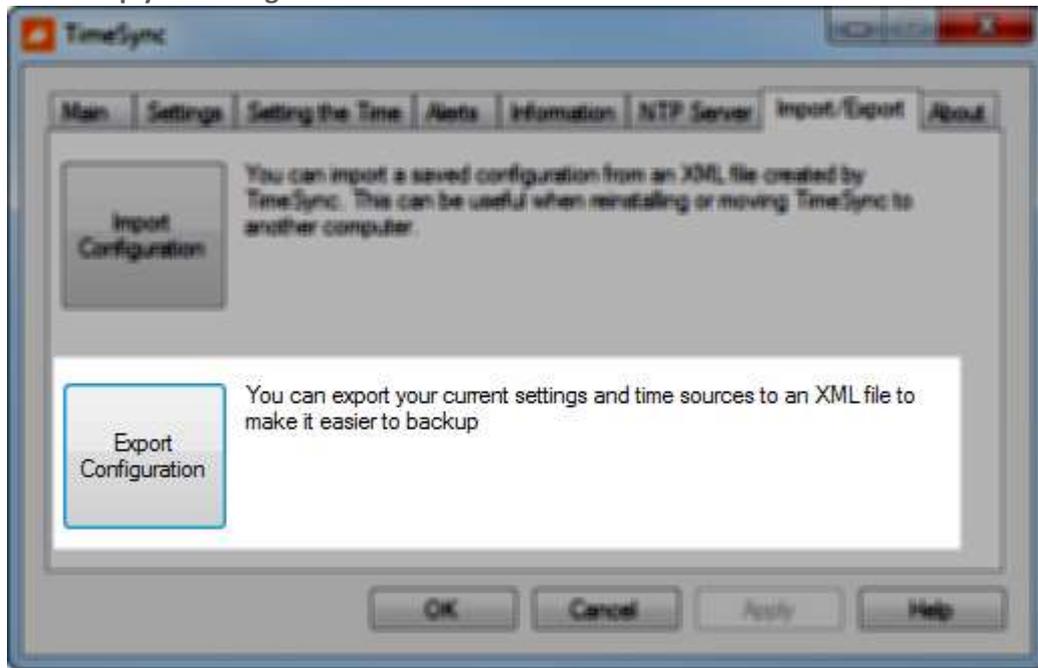## IMPORT/EXPORT TAB

The Import/Export Tab allows you to make a backup of your configuration and the ability to restore your configuration should anything go wrong.

Clicking the 'Export' button opens up a window to select where the file should be saved to in order to back up your configuration.
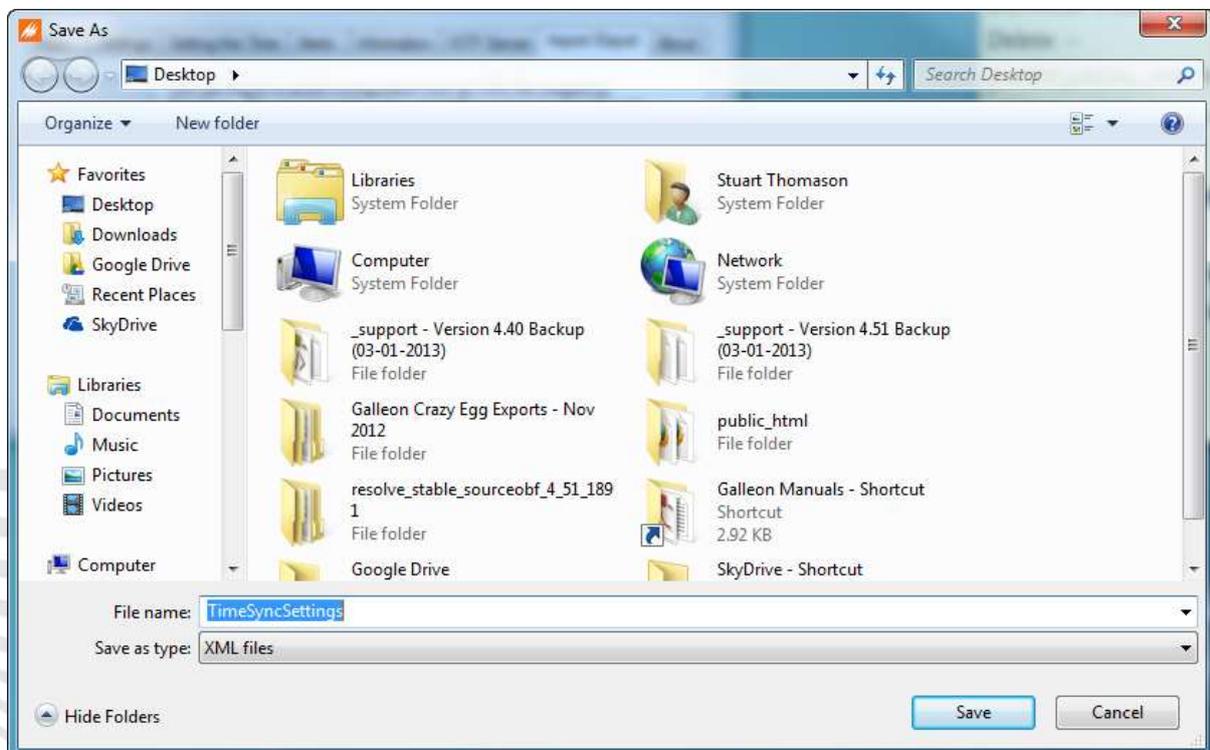
Clicking the 'Import' button opens up a window to select where the file should be retrieved from to restore your configuration.
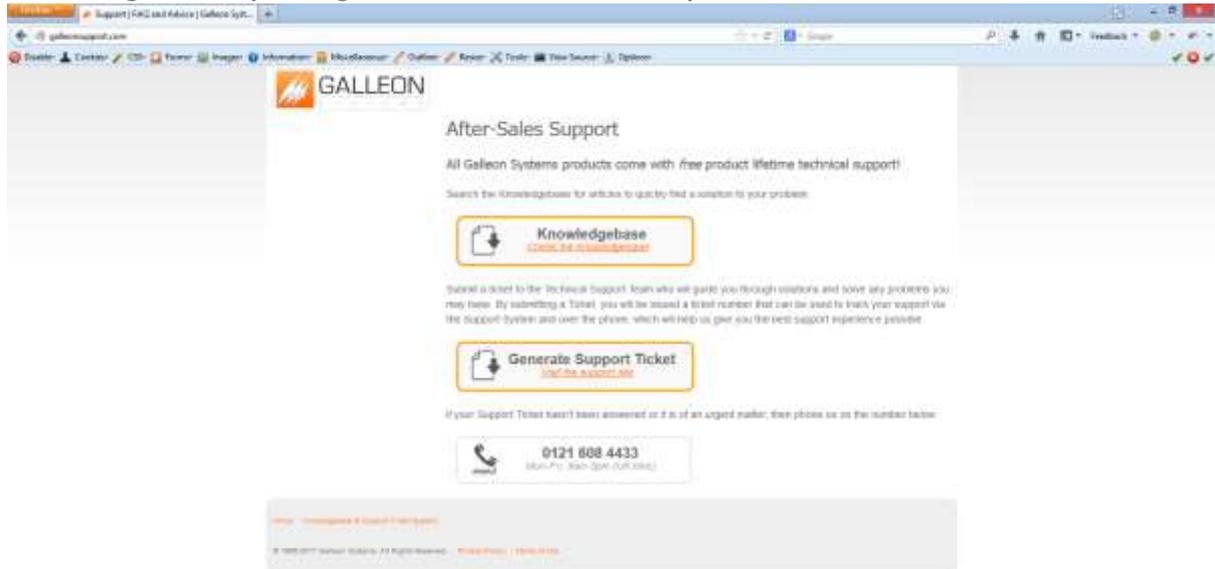
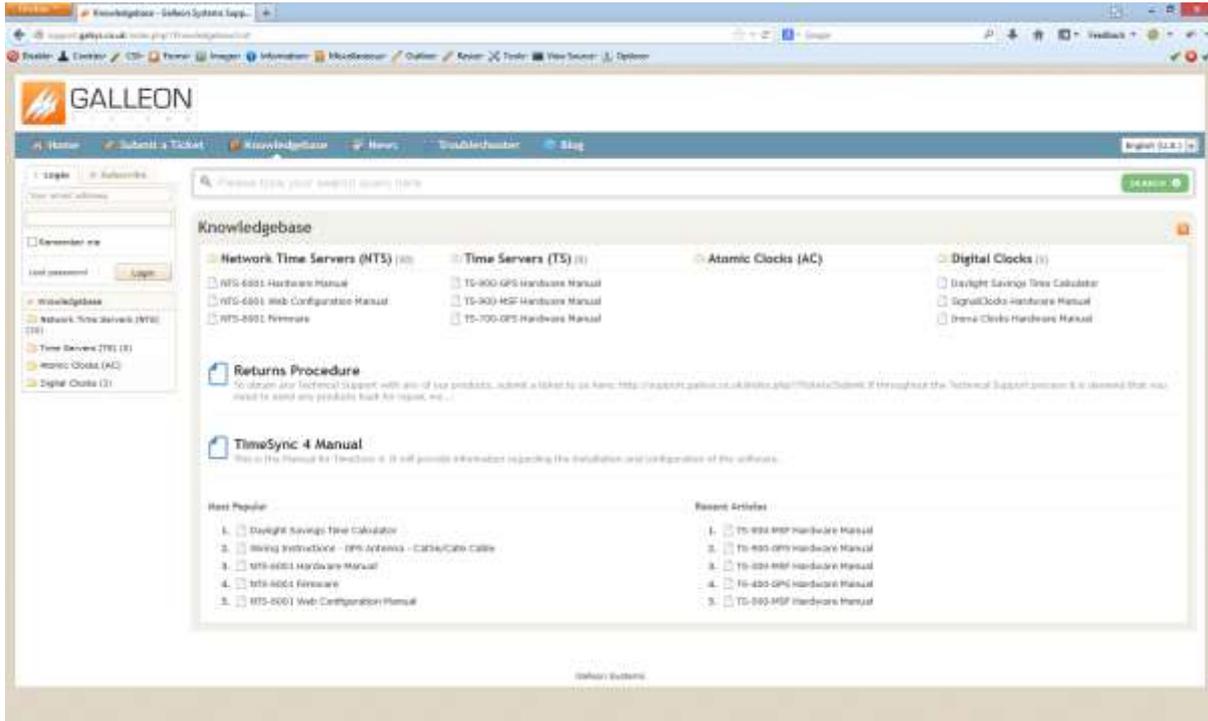# TimeSync 4
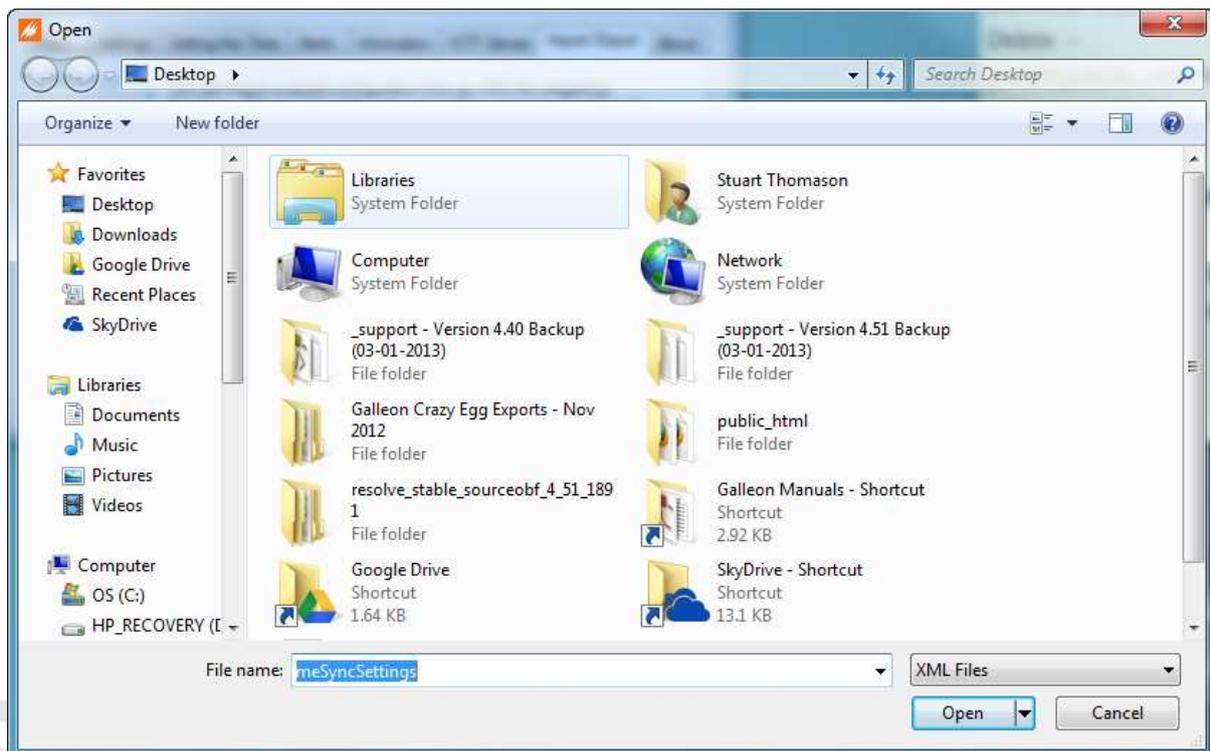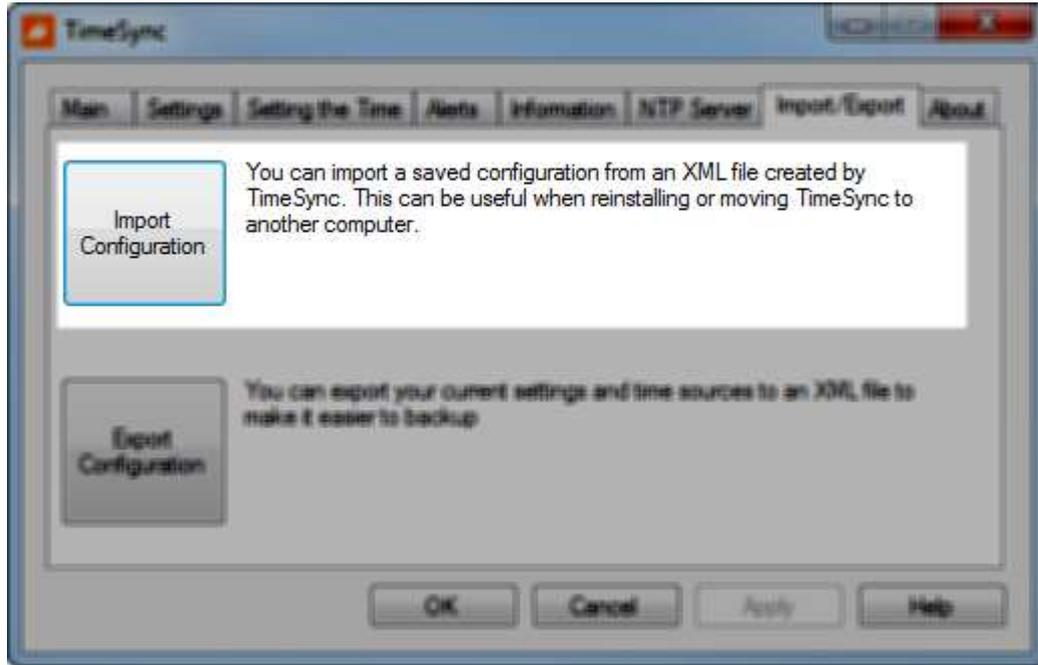
TECHNICAL SUPPORT

SUPPORT WEBSITE

Should you require any Technical Support on this product, please go to galleonsupport.com where you can find access to the Knowledgebase, for general information.
For any further questions please submit a ticket detailing the problems or technical issues you are having, and a member of the Technical Support Team will be available to support you. When submitting a ticket, please give as much information as possible.
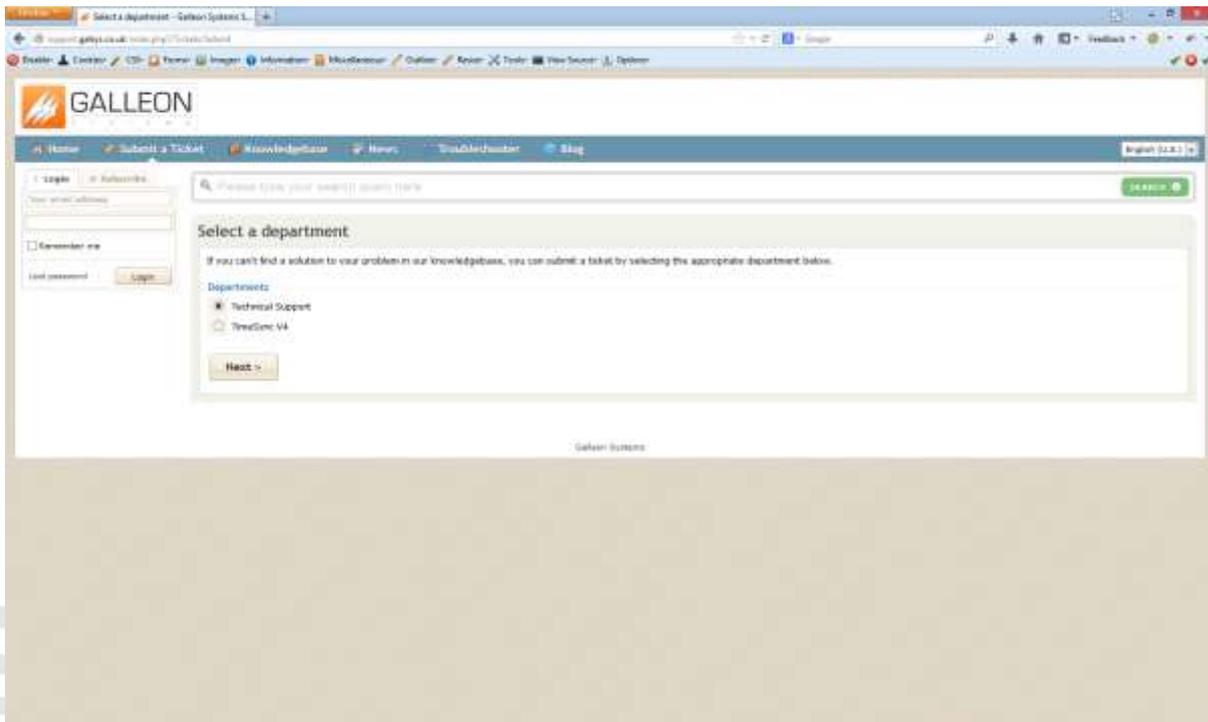

galleonsupport.com website with Knowledgebase and Support Ticket links.

The Technical Support Knowledgebase.

The Technical Support Ticket System.

WARRANTY AND MAINTENANCE

WARRANTY

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