User Manual

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User Manual
For Tersus GeoCaster

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Revision History

Revision	Description	Date	Owner
1.0	Initial Release	2019/1/31	LC

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1. Introduction

This chapter introduces the brief introduction, system requirements, installation, activation, and main interface.

1.1   Brief Introduction

The Tersus GeoCaster is a Networked Transport of RTCM via Internet Protocol (NTRIP) Caster software which allows GNSS correction data such as RTCM corrections to be repeated and sent to different end users via internet.   It supports configurable bases online simultaneously and configurable rovers for one base. The end users involve in various areas including surveying, construction engineering, deformation monitoring, automated vehicle, precision agriculture, Unmanned Aerial Vehicle, machine control, robotics, and etc.

1.2   System Requirements

Tersus GeoCaster is to run on a wide range of different computer configurations. The systems requirements are listed as below:

Table 1 System Requirements for GeoCaster

Operating System	Microsoft Windows 7, 8, 10 (32-bit and 64-bit)	
Hardware	Minimum	Recommended
Processor	Intel Core i3	Intel Core i5
RAM	4GB	8GB
Hard disk	10GB	1TB
Graphics card	Direct X9 compatible integrated graphics	Direct X9 compatible 2GB discrete graphics
Internet Connection	Ability to originate both http and https (SSL) connections	

1.3   Installation File

Download the installation file from Tersus website

https://www.tersus-gnss.com/software or contact Tersus Technical Support by

email support@tersus-gnss.com to obtain the installation file.

1.4   Installation

Right click the installation file (with .exe extension) and choose 'Run as administrator', the installation process starts as below.
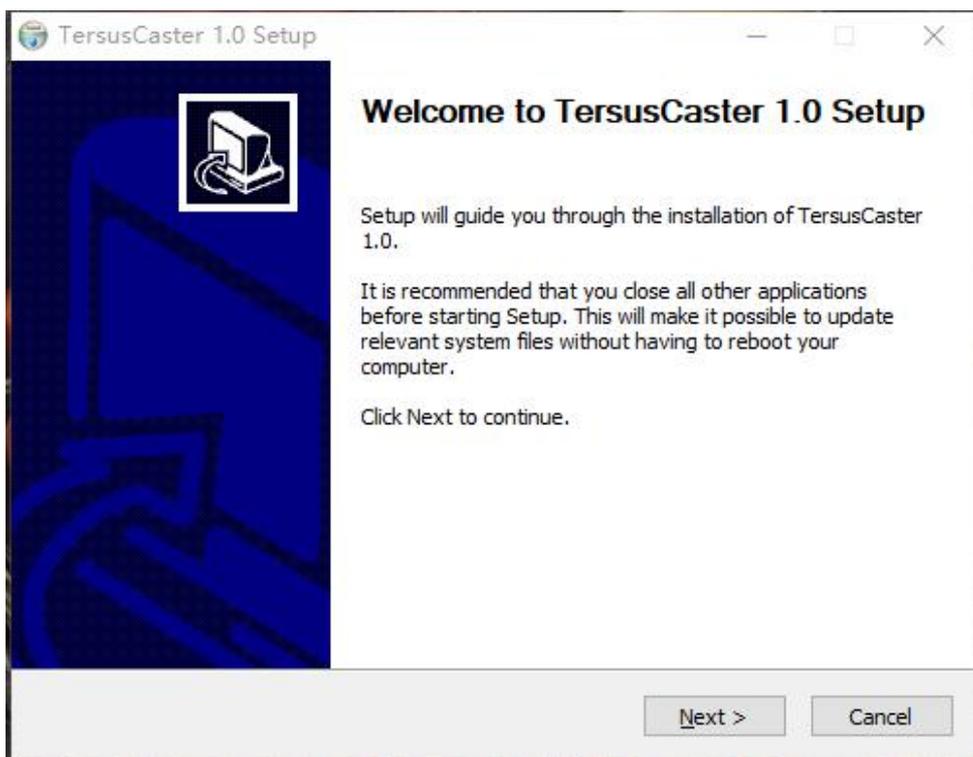
Figure 1.1 Start to install GeoCaster

Click [Next] to move to the next step.
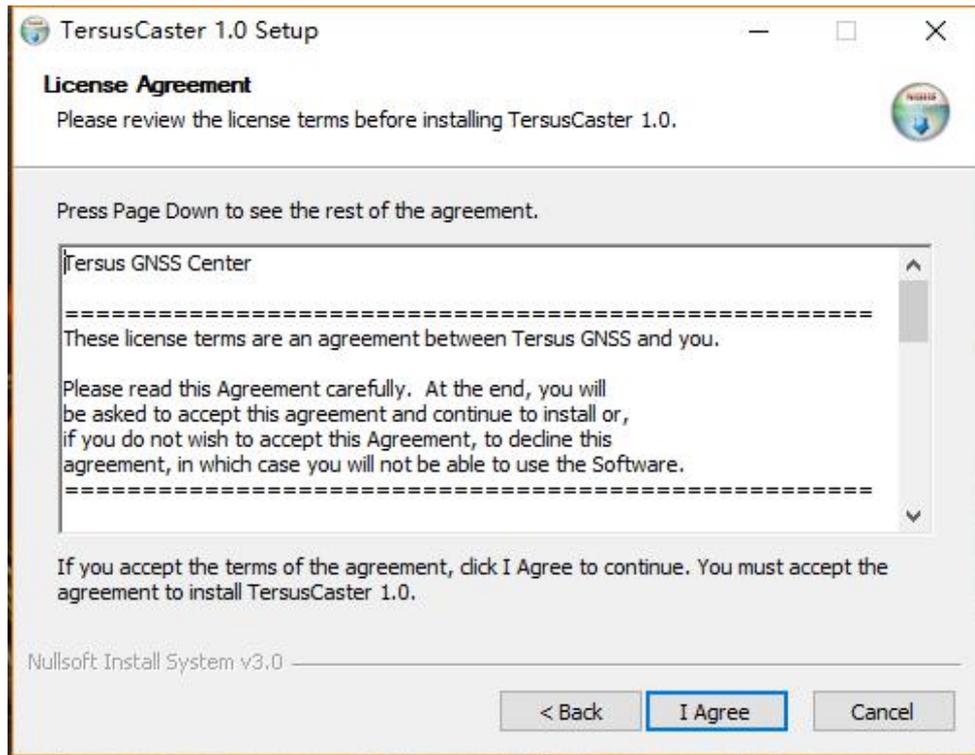
Figure 1.2 Read license agreement

Click [I Agree] to accept the agreement, and move to the next step.
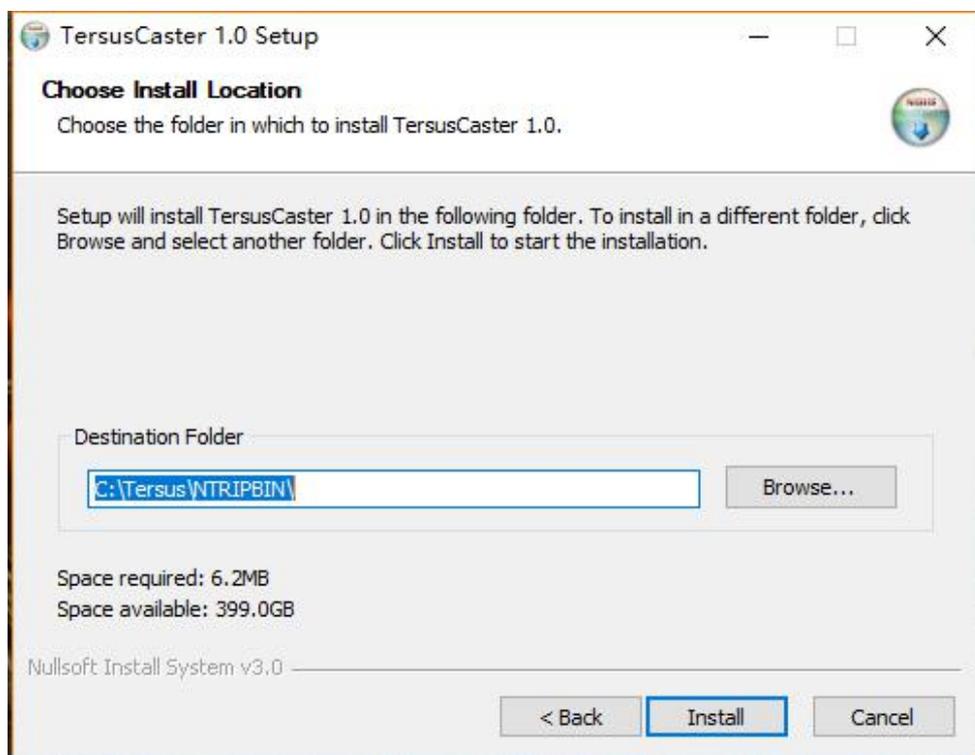
Figure 1.3 Choose install location

Browse the appropriate folder to install the software, click [Install] to start to install.
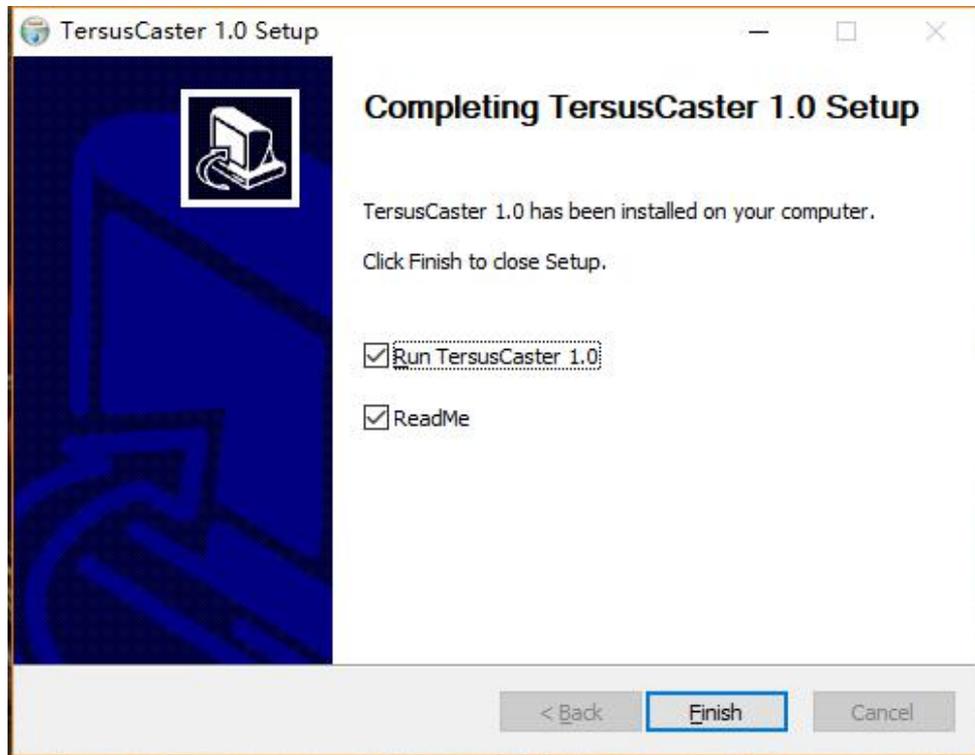
Figure 1.4 Finish the installation

After a few minutes, the installation is completed. Click [Finish] to finish the installation.

1.5 Activation

When first use the GeoCaster software, it should be activated by entering the activation code. To obtain the activation code, please send your machine sequence number to Tersus Technical Support by email

support@tersus-gnss.com and a unique string will be returned for activation.
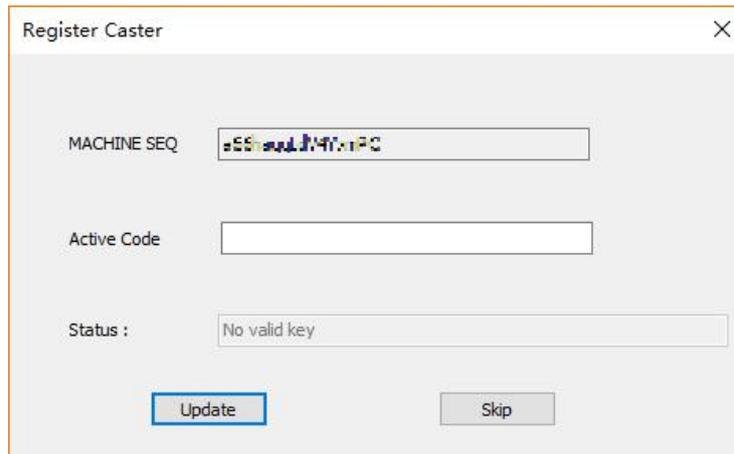
Figure 1.5 Register GeoCaster

If user clicks [Skip] in the above window, the software still cannot be opened and it pops out a warning window indicates that 'Please register software first'.
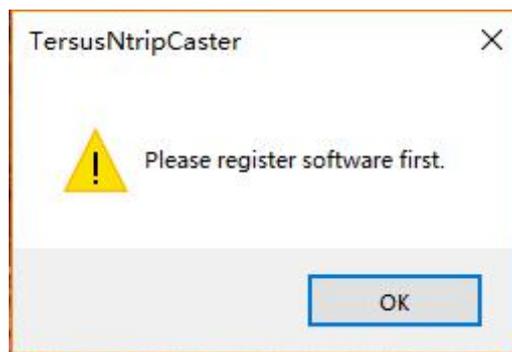
Figure 1.6 Register warning

1.6　Main interface

When the software is properly activated, it enters the watchdog and main interface which is shown below. Or double click the GeoCaster icon on the desktop to launch the software and enter the watchdog interface and the main interface.

The watchdog interface helps GeoCaster user to monitor caster status and set up SMS notification.
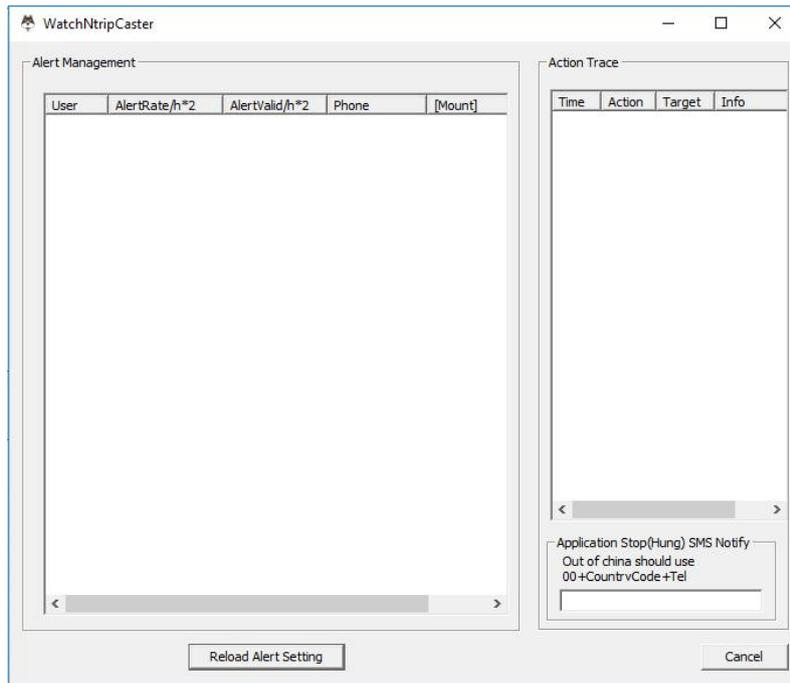
Figure 1.7 Watchdog interface
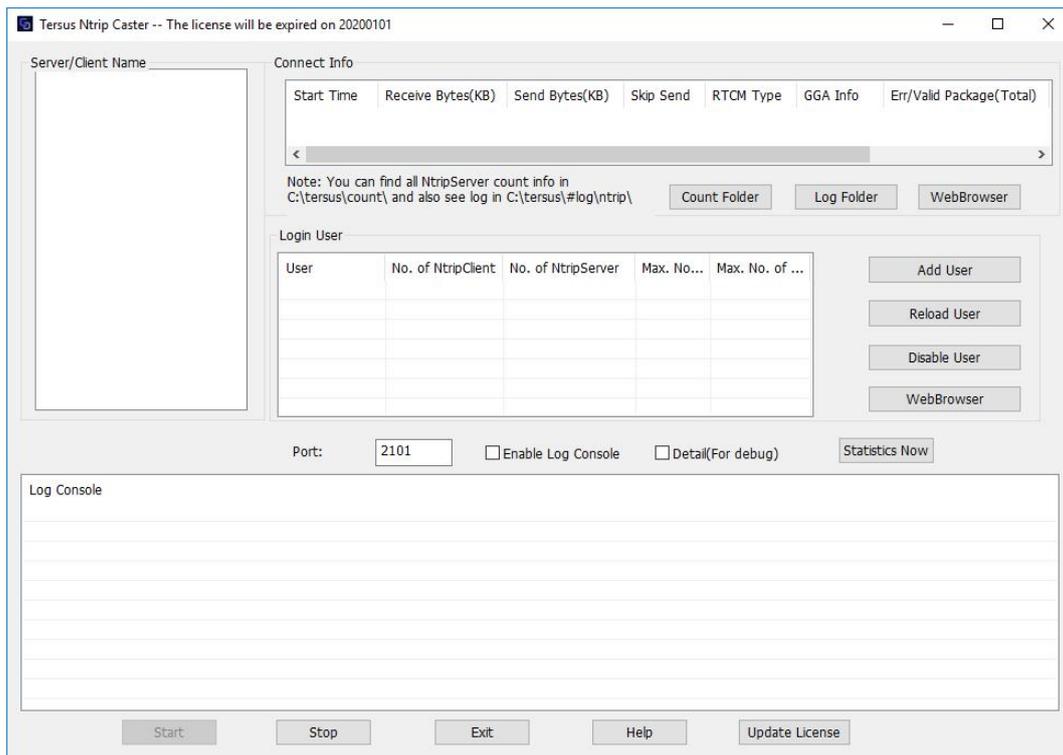
Figure 1.8 GeoCaster main interface

The GeoCaster main interface is shown above, and detailed operation will be described in the next chapter.

2. General Operations

This chapter describes the detailed operations for the watchdog interface and the main interface.

2.1   Watch Ntrip Caster

2.1.1 Introduction

The Watch Ntrip Caster interface provides watch dog function for GeoCaster. The interface contains three parts:

1) Alert Management

This area lists the information of Ntrip users, alert rate, alert valid time, phone number and mount point.

2) Action Trace

This area lists the details of time, action, target and information.

3) SMS Notification

This area sets up the telephone number for the SMS notification. For Chinese mobile, type the mobile number directly. For the users out of China, the notification number should use the format of 00 + country code + mobile number. For example, to notify a Singapore user, type 006512345678.

Generally, the Watch Ntrip Caster interface is for monitoring and notification. It is not recommend closing watchdog when GeoCaster is running.

2.1.2 Operations

The Watch Ntrip Caster is operating as shown below when there are a number of Ntrip users for management and monitoring.
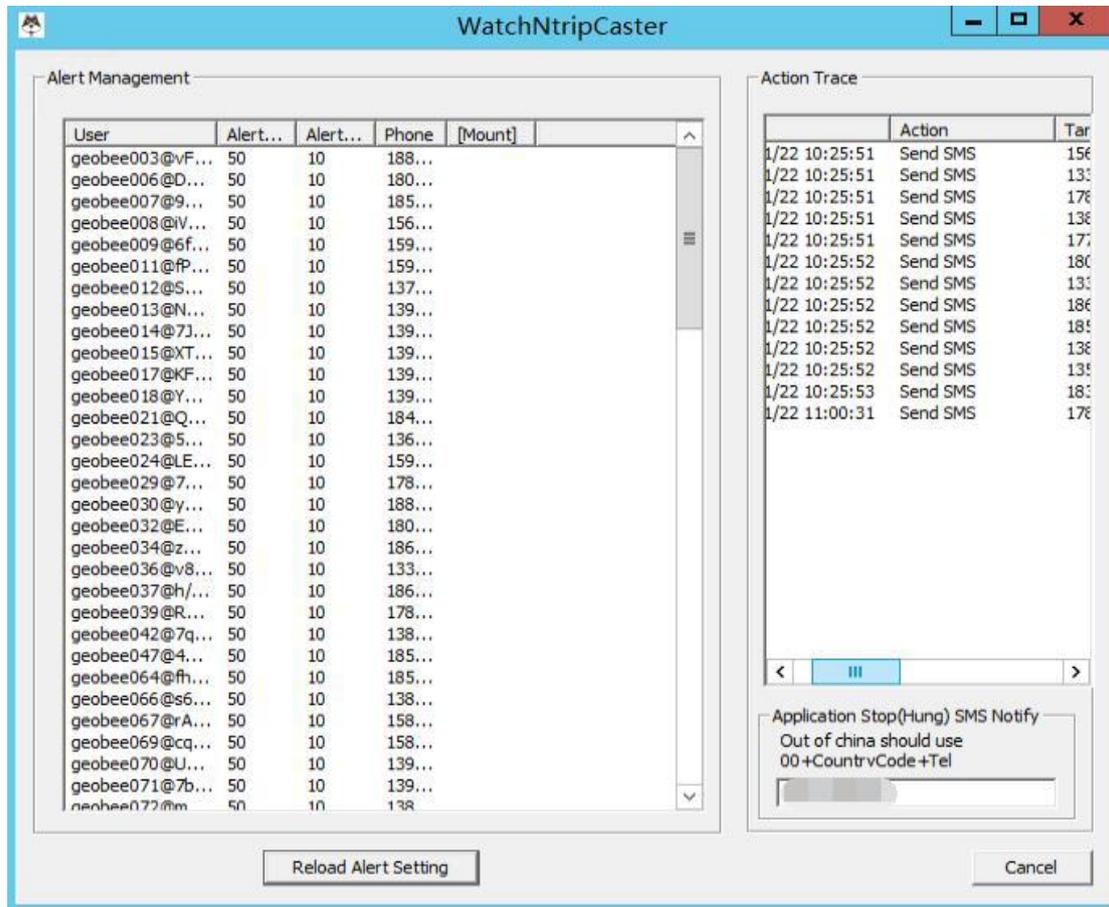
Figure 2.1 WatchNtripCaster in operation

If GeoCaster is closed accidentally, WatchNtripCaster will launch GeoCaster automatically and it has a record in the Action Trace area.

Contact Tersus Technical Support by email support@tersus-gnss.com for more information about the watchdog.

2.2   GeoCaster Main Interface

2.2.1   Introduction

The GeoCaster main interface contains four major information output areas which are shown as below.
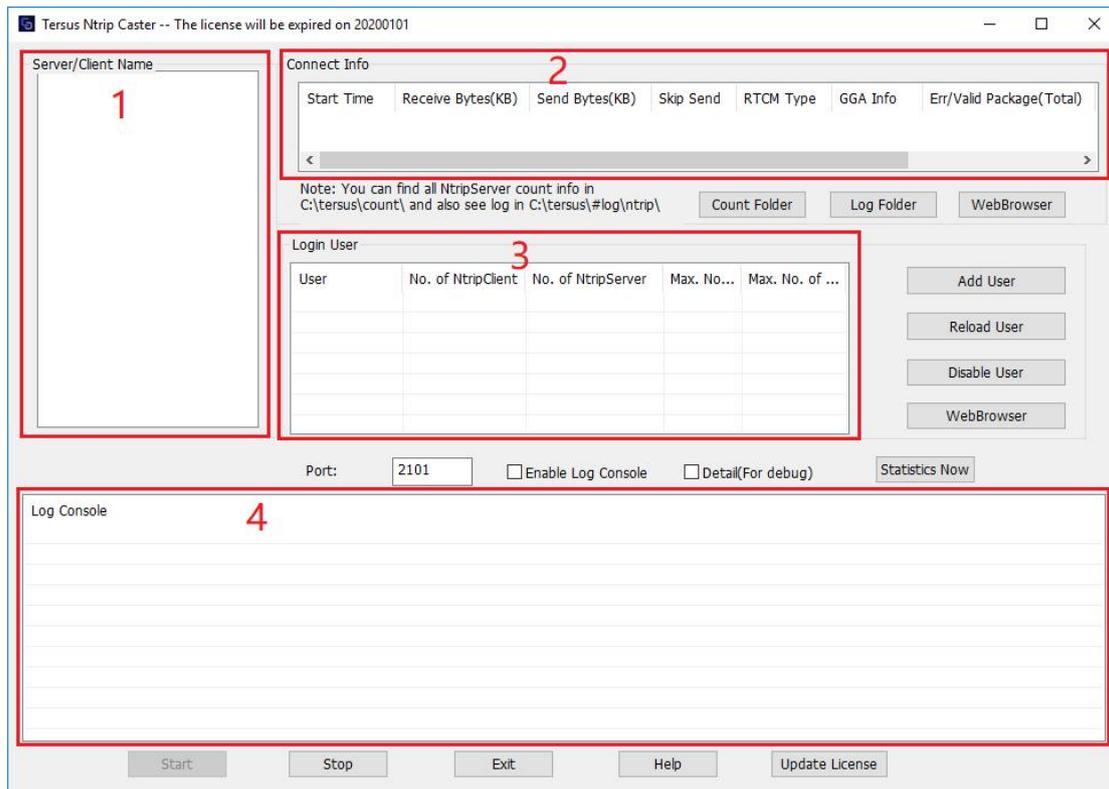
Figure 2.2 Information output area in GeoCaster

1) Server/Client Name

This area lists the server or client names which are sending RTCM stream to the NTRIP caster. The name consists of mount point, password, and user name.

2) Connect Info

This area presents the connect information of the server or client selected. The connect information includes: Start Time, Receive Bytes (KB), Send Bytes (KB), Skip Send, RTCM Type, GGA Info, Error / Valid Package (Total) and Latitude / Longitude / Height.

3) Login User

This area lists the information of logged in users which include user (user name and password), number of Ntrip Client, number of Ntrip Server, max number of Ntrip Client, and max number of Ntrip Server.

4) Log Console

This area presents the logs and information for every operation step, such as client is connected, client is aborted, responses, and etc.

2.2.2 Operations

The GeoCaster is operating as shown below when there are a number of Ntrip users are sending RTCM stream to this Ntrip Caster.
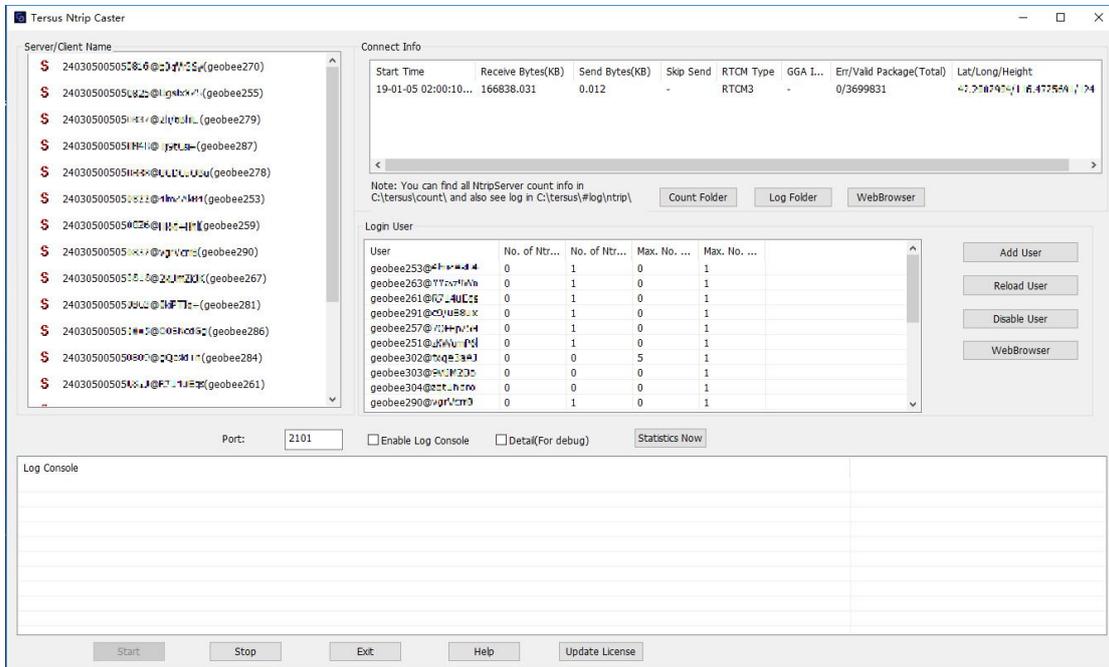
Figure 2.3 GeoCaster in operation

Under the connect info area, there are three functional buttons:

1) Count Folder

Click this button and the count folder will pop out as below. The count information is saved in a text file very hour.
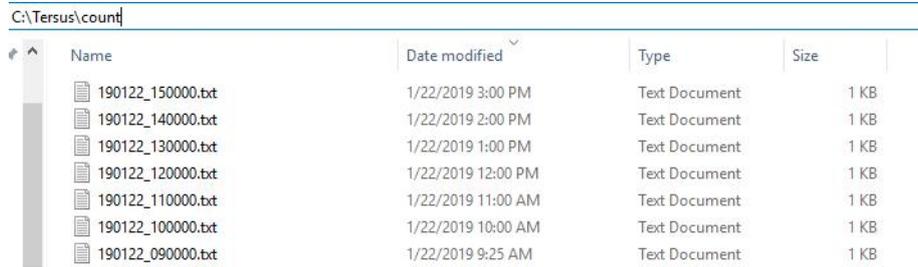
Figure 2.4 Count Folder

2) Log Folder

Click this button and the log folder will pop out as below. The log information is saved in a .log file which can be opened with notepad.
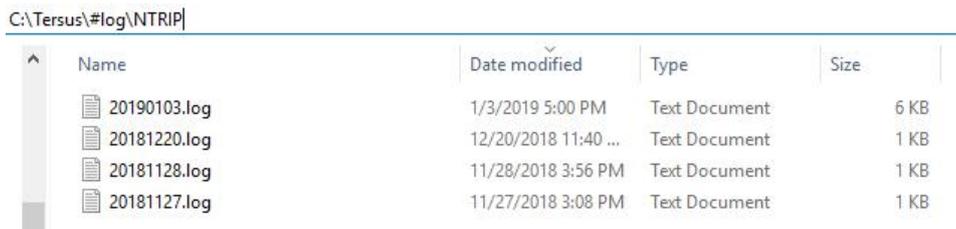
Figure 2.5 Log Folder

3) WebBrowser

Click this button and the default browser with link status for the selected mount point will pop out as below.

Figure 2.6 Link status in web browser

On the right side of login user area, there are four functional buttons:

1) Add User

Click this button, it pops out the user manage window which is shown below.

Figure 2.7 User Manage interface

The option with a star * is compulsory. Fill the configuration for a new user, click [Generate] to output the password for the newly created user.

2) Reload User

This button is used to share the registered user information. If customer wants to share the user info to another machine, copy lic.dat/licdisablelist.dat to destination directory, then click [Reload User] to update information.

3) Disable User

Select a user in the login user area if customer wants to disable it, and click [Disable User] to disable this user. Deleting user is not recommended.

4) WebBrowser

Click this button and the default browser with link status for the selected user in the left login user area will pop out as below.
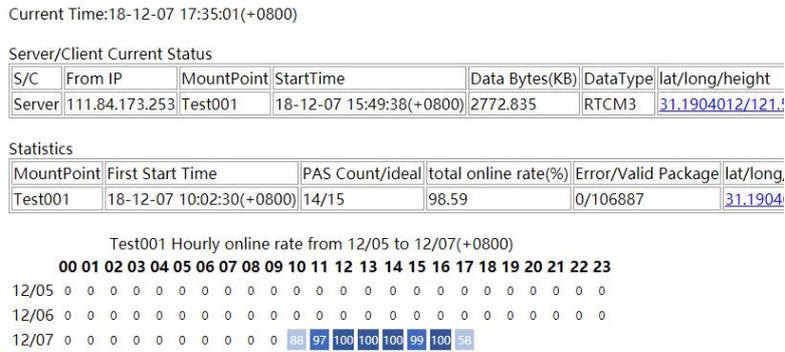
Figure 2.8 Link status in web browser

Under the login user are, there are three options and one button:

1) Port

The port number can be edited in this box.

2) Enable Log Console

Check the box on the left of [Enable Log Console] can enable the output of log console window.

3) Detail (For debug)

Check the box on the left of [Detail (For debug)] to view more details specifically for debug purpose.

4) Statistics Now

Click the button [Statistics Now] to create current count file, additionally from the auto created count file every hour.

On the bottom of the GeoCaster interface, there are five buttons:

1) Start

Generally this button is shaded when the GeoCaster is launched. If the software is turned off, click [Start] to turn on the GeoCaster service.

2) Stop

Click [Stop] to turn off the GeoCaster service.

3) Exit

Click [Exit] to close the GeoCaster software, however the WatchNtripCaster should be closed first.

4) Help

Click [Help] to pop out the text file of readme.txt which includes questions and answers that customer may encountered.

5) Update License

Click [Update License] to register GeoCaster for longer duration, contact Tersus Technical Support by email support@tersus-gnss.com for activation code.

3. Terminology

GNSS	Global Navigation Satellite System
NTRIP	Networked Transport of RTCM via Internet Protocol
PC	Personal Computer
RAM	Random Access Memory
RTCM	Radio Technical Commission for Maritime Services
SMS	Short Message Service

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