

Trimble VRS³Net is a unique new software package designed to optimize the performance and reliability of a VRS network. Trimble VRS³Net allows operators to build stable networks that are capable of providing continuous RTK corrections and postprocessed data to an unlimited number of users in a coverage area. In addition, Trimble VRS³Net software can help streamline your network and decrease overall operating costs.

THE FUTURE OF RTK POSITIONING TECHNOLOGY STARTS HERE

The Trimble VRS³Net software is the newest network management software package designed exclusively for Trimble® VRS™ network owners and operators. Trimble VRS³Net software allows you to optimize your network performance and reliability with the future in mind.

Developed by industry leaders using extensive feedback from existing customers using Real-time Kinematic (RTK) solutions all over the world, VRS³Net software is the most advanced network software on the market today. VRS³Net software enables an RTK network operator to manage an unlimited number of reference stations across any geographic area. In addition, VRS³Net software allows operators to build stable networks that are capable of providing continuous RTK corrections and postprocessed data to an unlimited number of users across a coverage area.

It is well known that the cost savings from a VRS network are significant, and investing in one that will grow with your specific needs has numerous benefits. Let Trimble's experience, quality and performance streamline your network and decrease your overall network operating costs.

MODERN ARCHITECTURE, MODERN TECHNOLOGY

Developed on a Microsoft's .NET platform, Trimble VRS³Net software supports the latest operating systems and is built to support a distributed environment—giving you more flexibility in your configuration and operations without the need for multiple modules and difficult configurations. Trimble VRS³Net software is modular and flexible enough to support any network utilizing a distributed architecture.

In addition, the new user interface is simple and easy to use. Its modularized architecture allows you to customize the user interface based upon your needs. This means that you can divide the module views across multiple monitors simply by dragging and dropping the modules into view, thus making your network management easier and more cost effective than ever before.

In addition, its services-based architecture means that fully integrated security and parallel maintenance is now possible without third-party tools. And, multiple core support means that load balancing and performance issues are no longer an issue. Finally, a database-driven system, powered by Microsoft SQL, means that changes to your system are easier than ever and keeping track of them is a snap!

FLEXIBILITY TO EXPAND YOUR NETWORK FOR LESS

Given today's challenging economic times, building a new network or upgrading an older network with Trimble VRS³Net software will significantly reduce your operating costs both now and in the future. The flexibility provided by VRS³Net software allows you to select the options that are important to you now, with the flexibility to expand your network according to your future needs.

No matter how small or large your network, VRS³Net software is designed to grow at your pace. The advanced database module enables networks to support more users than ever before. Now, supporting hundreds of concurrent users, as well as managing hundreds of reference stations from one control center, is easy and cost efficient. Moreover, the addition of SQL database support means that as your data storage requirements grow, your IT infrastructure has the capacity to grow as well.

VRS³Net software is also designed to support all of your GPS and GNSS receivers and can easily support modern receivers from a variety of manufacturers. In addition, when the time comes to upgrade to a Trimble Infrastructure receiver, you can switch at any time. The power is yours to design a network that will support your needs and grow along with you.





NETWORK MONITORING WITH TRIMBLE INTEGRITY MANAGER

Now, monitoring a network using Trimble Integrity Manager™ software can be integrated as an optional add-on module in the Trimble VRS³Net Plus software package. Not only does it give you a real-time sense of the overall health of your network, it also gives you a visual snapshot of the overall performance of your entire system. This tool can help you realize the benefits of an efficient network that will result in significant cost savings when implemented into your daily network operations.

UNDERSTAND THE SOURCE OF YOUR DATA

Trimble VRS³Net software is the only software solution that tells you exactly which reference station your data is coming from—giving you the reassurance that your data is correct. Without this information, you may not be receiving data from the closest reference station possible, thus creating the potential for unnecessary errors. Only Trimble Infrastructure software calculates the closest reference station using your location and the coordinates of the reference station closest to you. In addition, our exclusive mobile reference station functionality ensures that you will always receive data from the closest reference station. So that if you move, the software automatically adjusts the reference station from which you are receiving your corrections. Why risk getting data from unreliable methods?

TRUE VRS CORRECTORS: DATA DIFFERENCES THAT MATTER

Trimble VRS³Net software provides multiple data output options that are flexible enough to meet your needs. Only Trimble provides true VRS corrections with modeling algorithms that are only incorporated into Trimble software. Trimble engineers are an integral part of the RTCM development committee and as a result, all versions of RTCM outputs are supported. Additional legacy formats, such as MAC, are available for applications that do not require the same level of accuracy provided by VRS. Each reference station in the VRS³Net software network can be configured to output correctors in any supported format preferred by the network operator.



TRIMBLE VRS³NET SOFTWARE SUPPORTED DATA FORMATS:

Storage Formats:	Real-Time Output (DGPS mode):	Real-Time Output:
RINEX	RTCM2.1	RTCM2.1
DAT	RTCM2.3	RTCM2.3
T01		RTCM3.1
T02		CMR, CMR+, CMRx

RELIABLE, CONSISTENT PERFORMANCE

Trimble understands that a stable network with predictable performance is critical to your success. Trimble VRS³Net software provides the consistent performance you need to make sure that you are getting the most out of your network. Advanced protection such as protected memory areas and new algorithms for raw data analysis will provide the security that you need to prevent system crashes and unreliable data from disrupting your network. Our positioning processing engines protect the underlying positions so you can be confident that you are receiving the most accurate data available. Trimble VRS³Net software architecture uses the latest version of Microsoft .NET. This, combined with support for 64 bit operating systems, ensures that you are getting the performance that you expect from a Trimble network solution.



ADVANCED WEB FUNCTIONALITY, REPORTS AND GOOGLE MAPS SUPPORT

Trimble VRS³Net software makes operating your network easier than ever. With our Trimble Web Server Advanced option, accounting and billing management is simple and accurate. The integrated Reference Data Shop allows you to generate Continuously Operating Reference Station (CORS) and VRS reference data observation files for post processing applications. In addition, Google™ Maps support allows you to monitor your network status at a glance, giving you a visual snapshot of your network performance and status. This allows you to proactively alert your users when adverse conditions arise. Informing your crew of network or environmental conditions has never been easier. Network users can log onto your network website from the field and get the latest, up-to-date information available.

Network reporting with VRS³Net software provides an easy way to get the information that you need on demand. Now, various standard reports are pre-defined, giving you the tools to customize and define reports that are useful to you. In addition, custom reports are easily created and delivered in various formats, such as *.pdf, *.html, *.xml, *.csv or *.txt.

EXAMPLES OF PRE-DEFINED REPORTS:

- 1 Connection status report
- 2 Station information report
- 3 Data storage report
- 4 Session report
- 5 Subscription report
- 6 Properties changed report
- 7 Module health changed report



SPARSE GLONASS SUPPORT

Trimble's Sparse GLONASS technology is exclusive to Trimble Infrastructure software and is an excellent option for networks that may have weak or no GLONASS coverage in specific areas of the network. This optional functionality incorporates available GLONASS data into your modeled solution, providing you with the value that you get from GLONASS satellites even if your network does not include Global Navigation Satellite System (GNSS) reference stations in all areas. The result gives network owners the ability to slowly expand or upgrade the GLONASS coverage in their networks while, at the same time, taking advantage of the GLONASS data that is currently available, eliminating waste and improving results.

FUTURE-PROOF YOUR NETWORK

As we approach 2012, the increase in ionospheric activity will be significant and will increase the potential for errors in your data. Trimble VRS³Net software has fine tuned its ionospheric and tropospheric modeling to prepare for these changes as well as improved the rates at which they are processed. This ensures that your networks will provide the most accurate data available without a negative impact to overall processing time. In addition, advanced multipath modeling has been developed in order to help you analyze how local conditions will affect your code and phase observations. Finally, Trimble VRS³Net software supports all currently available and future signals, such as GLONASS and L5. When the time comes for Galileo and Compass support, you can be confident that we will be ready when you are.

Default Network Configurations:	Standard	Plus
Trimble Infrastructure receivers	5	5
Number of RTKNet processor/synchronizer	1	1
Number of single station real-time output connections	10	10
Number of modeled real-time output connections	15	25
Number of Trimble Ntrip caster mount points	10	10
External sensor	Yes	Yes
L2C support	Yes	Yes
RTCM Input	Yes	Yes
GLONASS support	Yes	Yes
L5 support for tracking and storage	Yes	Yes



Optional Functions:	Part Number	Standard	Plus
Google Maps support	64595-10	No*	Yes
Storage integrity (Trimble receiver only)	64595-15	No*	Yes
Advanced multipath monitoring	64595-16	No*	Yes
Data storage	64595-17	No*	Yes
DGPS output in real-time output module	64595-19	No*	Yes
VRS mode in real-time output module	64595-20	No*	Yes
FTP mirror	64595-23	No*	Yes
Network motion engine	64595-26	No*	Yes
Web application basic	64595-30	No*	Yes

* May be included for an additional charge.

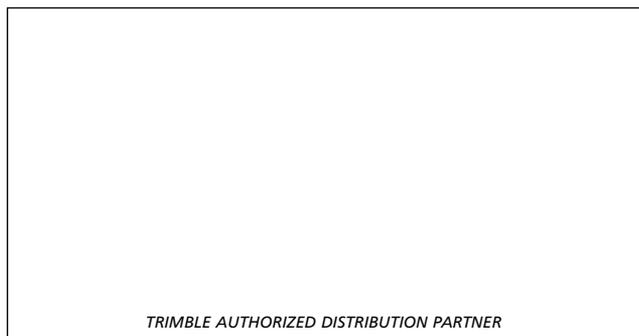
Expansion Options:	Part Number	Standard	Plus
1 additional infrastructure receiver	64595-01	1	1
1 additional G1 receiver	64595-02	1	1
1 additional G2 receiver	64595-03	1	1
1 additional G3 receiver	64595-04	1	1
1 additional RTKNet processor/synchronizer	64595-05	1	1
1 additional single station real-time output connection	64595-06	1	1
15 additional modeled real-time output connections	64595-07	15	15
25 additional modeled real-time output connections	64595-08	25	25
1 additional Trimble Ntrip caster mount point	64595-09	1	1

MINIMUM SYSTEM REQUIREMENTS

- Operating system:
 - Microsoft Windows Server 2003, Service Pack 1 or later
 - Microsoft Windows XP Professional, Service Pack 2 or later, 32 bit and 64 bit
 - Microsoft Windows Server 2008 Service Pack 1 or later, 32 bit or 64 bit
- Processor
 - One of the following, all of them supporting SSE2 (for example, Intel® Pentium 4® or later):
 - Single processor with hyper-threading ability enabled, at least at 3.0 GHz
 - Dual processor, at least at 3.0 GHz
 - Dual core processor, at least at 1.5 GHz
 - Quad core processor
- 3 GB Ram
- USB port
- Free space on the local C:\ drive of at least 20 GB for the Trimble VRS³Net software DBServer
- Additionally 20 GByte on hard disk (depending on stations and amount of data to be archived)
- 100 Mbit communication link between computers running Trimble Distributed Environment
- 10 Mbit communication link between computers running the Trimble Distributed Environment and computers running VRS³Net software User Interface
- Read/write access rights to the registry on any computer running Trimble Distributed Environment or the Trimble Database Engine

Depending on your specific requirements, your system may require additional hardware or communications in order to fully support your needs

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