

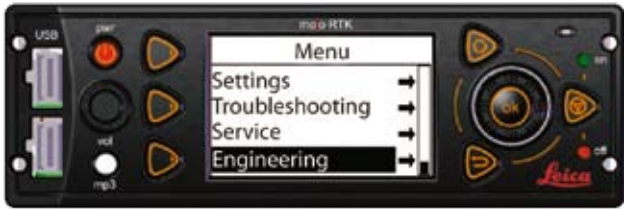
Virtual Wrench™ Product Specification

Overview

Virtual Wrench™ is a remote service system that can be used by resellers to provide high level, instant support to their customers. Via the built-in cell phone connection on Leica Geosystems products, the service person can log on to a web browser and monitor, configure, upgrade, update and maintain their customers' electronics from any web browser.

Features

Remote view



- Allows the service person to see what the user sees to diagnose common problems
- Remote button and dial controls allow service personnel to walk the customer through the system's capabilities
- Generic architecture can easily be adapted to support user interfaces other than mojoRTK

Remote statistics

- See all key diagnostic parameters in real-time – such as software version, current satellite visibility at the base station and rover, battery levels and CAN bus status to quickly assess your customer's situation. Items that need attention are highlighted in red
- On J1939 and/or ISO11783 tractors, the system can be configured to see all available messages, including engine and transmission speeds, implement activity and fluid levels

On-Board software update

- There is no need to send a service person to a customer site for a software upgrade. When the customer requests, the mojoRTK console will download the latest version from Virtual Wrench™ and install this via a simple wizard

Customer View

Update Control		Real-time events to send		Device Statistics		Position Information		Device configuration		Service History		Device/Customer Info	
Device Details													
ID:	228												
Serial Number:	675665,000132												
Public Key:	MBICCWDL7znUrhVuYvqiAgMBAAE=												
Contract:	FLEET												
Owned by:	Leica Tony Witney .,,7650												
Package Version													
Package	Version												
(post-call)	1.0.3												
Device Information													
Key		Value											
Authorization Codes													
Code	Features	Expiry	Enabled										
IS377LGVZWIL3XZF• HPVHCQIPLPDU332•	GLONASS GPS	Never Expires Never Expires	true true										

- View customer status and current authorization levels at a glance
- Update customer details and assign service level agreements

Location view



- This feature allows customer service personnel to see where the vehicle and base station are located to determine any geographical issues and advise the customer accordingly

Automated Customer Service ticket system

- Tickets are automatically raised when a customer requests service from their controller and advises the customer service personnel by SMS and e-mail of the pending ticket, associated phone number and system details
- Allows service personnel to record service conducted to ensure that customer issues are resolved, that recurring issues can be attended to, and for billing purposes

Leica service support

■ Configuration View

Update Control	Real-time events to send	Device Statistics	Position Information	Device configuration	Service History	Device/Customer Info
cal.ublox	BASLINE_LEN		0.750000			
cal.ublox	BASLINE_LENGTH_VARIANCE		.0001			
cal.ublox	MAX_ROLL		25.000000			
cal.ublox	RED_ATTENNA_ON_RIGHT		1			
cal.ublox	STATIC_FLOAT_FILTER_LEN		600			
can	centre		0.000000			
can	data_address		localhost			
can	data_port		5014			
can	ez2_calibrated		1			
can	freeplay		46			
can	left20		-4000.000000			
can	port_name		/dev/pcan40			
can	right20		4000.000000			
can	steeringkit		trimble_ez2			
can	ticks_per_curvature		-9008.712590			
can	valve_address		24			
can	wheel_address		23			
cdma	password		telstra			
cdma	username		user@telstra.internet			

- This feature allows Leica Geosystems technicians to view all customer settings remotely and modify them to optimize system performance or rectify incorrect configurations
- It is also possible to reset the controller defaults via this feature

■ Remote feature upgrades



- Leica Geosystems technicians can instantly provide upgrades such as extended baselines and GLONASS capabilities either on a temporary or permanent basis, without the need for user interaction
- Details of the upgrade are sent by e-mail and SMS automatically

■ Download Logs



- Leica Geosystems technicians are able to download log files to see what occurred before the customer contacted customer service, to understand and rectify any issues that instigated their call

■ Configuration View



- If, by any chance, something is not covered by the other features in the system, Leica Geosystems' engineers can access the device and quickly determine all possible status

Feature	Reseller	Leica Geosystems Technician
Remote view	✓	✓
Remote Statistics	✓	✓
Location view	✓	✓
Software update	✓	✓
Customer Alert	✓	✓
Configuration View		✓
Customer View		✓
Remote Feature Upgrades		✓
Download Logs		✓
Command Line Interface		✓

System requirements

Browser	Microsoft Explorer v6.x or higher Mozilla Firefox v1.08 or higher
Resolution	1024x768 or better preferred 800 x 600 also possible.

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- when it has to be **right**

