EUPOS countries network RTK quality monitoring tool
Status in 2017

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DESIGN OF THE MONITORING TOOL

Virtual solution (no physical monitoring stations)

Baseline processing by RTKNAVI www.rtklib.com

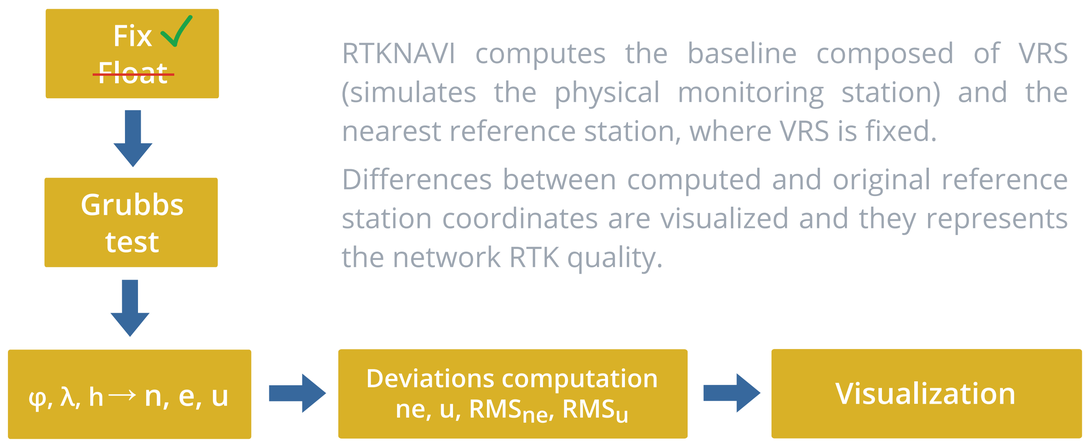
Monitoring independent from the GNSS service provider control software

Fully automatic solution

Results available via web application

Random generation of (virtual) test points

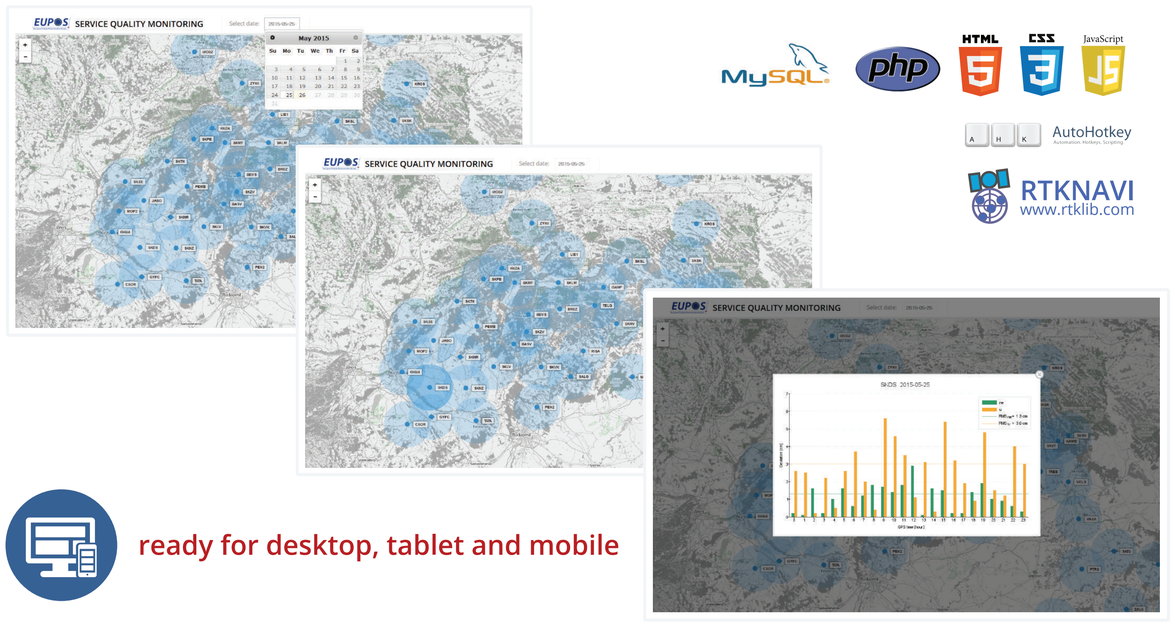
PRINCIPLE AND PROCESSING DIAGRAM



RTKNAVI computes the baseline composed of VRS (simulates the physical monitoring station) and the nearest reference station, where VRS is fixed.

Differences between computed and original reference station coordinates are visualized and they represents the network RTK quality.

USER INTERFACE - http://monitoringEUPOS.gku.sk



MySQL · php · HTML · CSS · JavaScript · AutoHotkey · RTKNAVI www.rtklib.com

ready for desktop, tablet and mobile

EUPOS NETWORK QUALITY MONITORING STATUS (MAY 2017)

Network	Participating stations
SKPOS®	34
ASG eupos	32
GNSSnet.hu	7
ROMPOS	68
SAPOS®	4
RIGA EUPOS	5
MOLDPOS	10
Σ	160

RESULTS AND EXPERIENCE

EUPOS networks deviation comparison, Deviation analysis according to high ionosphere (day/night comparison)

RTK network		SKPOS®	ASG eupos	GNSSnet.hu	ROMPOS	SAPOS®	RIGA EUPOS	MOLDPOS	EUPOS
Software		Trimble Pivot Platform	Trimble Pivot Platform	Geo++ GNSMART	Leica Spider	Trimble Pivot Platform	Geo++ GNSMART	Leica Spider	Σ
Time period		1 399 days	1 009 days	913 days	877 days	667 days	559 days	137 days	
Monitored stations		34	34	7	68	4	5	10	**160**
Average value	ne	1.1 cm	0.9 cm	1.2 cm	1.2 cm	0.9 cm	1.0 cm	1.0 cm	**1.0 cm**
	u	2.4 cm	1.2 cm	1.3 cm	2.6 cm	1.4 cm	1.8 cm	1.3 cm	**1.7 cm**
Average value "day"	ne	1.3 cm	1.2 cm	1.6 cm	1.6 cm	1.1 cm	1.3 cm	1.4 cm	**1.4 cm**
	u	2.4 cm	1.3 cm	1.3 cm	1.4 cm	1.4 cm	1.9 cm	1.6 cm	**1.6 cm**
Average value "night"	ne	0.9 cm	0.7 cm	1.2 cm	1.0 cm	0.7 cm	0.8 cm	0.9 cm	**0.9 cm**
	u	2.4 cm	1.2 cm	1.3 cm	1.3 cm	1.2 cm	1.8cm	1.5 cm	**1.5 cm**
No fix		14%	7%	15%	18%	9%	25%	28%	**17%**
No fix "day"		17%	8%	19%	20%	12%	30%	30%	**19%**
No fix "night"		11%	6%	11%	16%	6%	20%	25%	**14%**

„day" means time from 6:00 to 18:00
„night" means time from 18:00 to 6:00

Horizontal deviation analysis according to the station position