Introduction of NTRIP

What is it?

- **Networked Transport of RTCM via Internet Protocol**
- Format created by Federal Agency for Cartography and Geodesy (BKG) and Trimble Terrasat GmbH
- Freely available standard from: [http://igs.ifag.de/index_ntrip.htm](http://igs.ifag.de/index_ntrip.htm)

Introduction of NTRIP

Why NTRIP?

- Ntrip is an alternative from existing RTK-Services
- One defined “communication technique”
- Potentially a lot cheaper than GSM dialup.
- If CMR/CMR+ is used then could be 3 times cheaper than RTCM 2.x format

Basic Working and Components

Basic Working...

- Two possibilities of sending correction data
- Via techniques like GSM, GPRS, EDGE, UMTS

Basic Working and Components

Components...

- NtripSource
- GNSS Receiver
- NtripServer
- Software
- NtripCaster
- HTTP Server
Applications and Benefit

Currently existing GPS receivers in Europe streaming “test” data through Ntrip

Example for the state of Hessia in Germany

What you need is:
141.90.2.81:8080
...and a software

Applications and Benefit

Applications...Trimble Survey Controller

No special hardware for receiving RTCM
No lack of performance (and speed)
On the contrary better time of latency
Cost factor (GPRS vs. GSM)
DGPS 0.5 kbit/s
RTK 5 kbit/s
Mass-Usage
GIS, Surveying etc.

Networked Transport of RTCM via Internet Protocol (NTRIP)
Application and Benefit in Modern Surveying Systems

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