



**YOUR OWN RTK**

## ***Become an RTK service provider!***

Are you considering operating your own RTK service?  
Alberding GmbH would like to help you.

### **Your Base Station**



Set up your own RTK base station.  
We provide you with state-of-the-art GNSS hardware and assist you with the installation, receiver configuration and station coordination procedures. On-site system installation takes half a day.

### **Your Ntrip Caster**



Subscribe to our Alberding Ntrip Caster service or install your own copy of the software on a server and connect your base station. Convert your input data into various industry standard formats. Distribute your RTK corrections via the Internet. Manage and monitor your users and data streams through a web interface.

### **Your RTK service**



Start your cm accurate RTK correction service. RTK rovers can access the corrections via mobile Internet connection. RTK fixed status is reached in just a few seconds. There is no need for repeaters. Install or integrate more base stations to expand your single-station system into a regional cluster.

# The Alberding RTK solution

## HARDWARE INDEPENDENCE

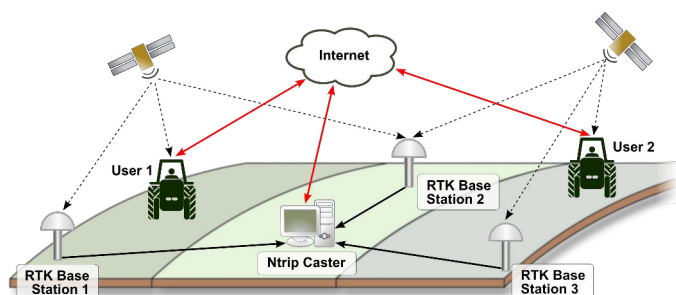
Alberding GmbH is an independent German GNSS software and hardware development company. Our solutions work with any high-quality GNSS receiver hardware. Whatever colour your RTK base or rover receiver is, we will be able to help you set up your own RTK service.

Don't you have your base station yet?

No problem. We can provide you with geodetic quality GNSS reference station receivers and antennas.

## RTK CORRECTION TRANSMISSION VIA THE INTERNET

Measurement data of one or more RTK base stations is transferred online to a server computer in real time. In the heart of the solution is the Alberding Ntrip Caster software running on the server. The Ntrip caster manages the incoming data streams, converts the data into standard formats (RTCM 3.x, CMR+,...) and makes the corrections available for download to many simultaneously connected users. Customers receive password-protected access to the service through mobile Internet connection.



Internet-based data delivery allows RTK rovers to operate further away from the base stations without having to install radio repeaters.

## NEAREST BASE STATION SELECTION

Users can either decide to download the RTK corrections of a manually selected base station or the nearest active station is automatically selected for them, based on their actual position. The Alberding Ntrip Caster software supports user position input in NMEA GGA format. The 'nearest base' option is particularly useful for dynamic applications such as precision farming.

## WEB INTERFACE

The Alberding Ntrip Caster can be conveniently configured through its user-friendly web interface. In addition to RTK data distribution, the software can also monitor the availability of the data streams and generate visual alerts in case of connection interruptions. With the Alberding-QC Checkstream tool even e-mail and SMS warnings can be sent if base station data becomes unavailable.

| RTK | Offline | Online | Warning |
|-----|---------|--------|---------|
| 175 | 1       | 1      | 0       |

|        |        |        |        |        |        |
|--------|--------|--------|--------|--------|--------|
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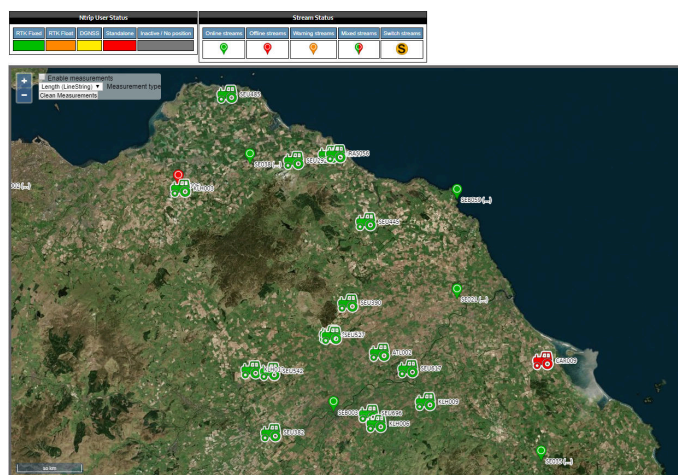
## ONE SYSTEM - MULTIPLE SERVICES

The Alberding Ntrip Caster software allows the system administrator to give different levels of access to the web interface. Sub-administrators can add and manage their own data streams and users. The same Ntrip caster can be used by

several base station operators to provide independent RTK services to their clients.

## RTK FIXING STATUS MONITORING

For billing and statistical purposes the RTK service provider can download information about the connection history of individual users. On the 'Map' view of the web interface the position of the currently connected users is displayed. The RTK fixing status of each rover receiver is indicated with colour-coded user icons.



User tracks can also be downloaded in KML format for detailed historical data analysis. The KML log file contains all user positions and the corresponding quality status data for a given connection. Service operators can use this information to monitor service quality and troubleshoot user performance issues.



## FAULT TOLERANT ARCHITECTURE

To increase service availability and security, a copy of the Ntrip caster software can be installed on a second server. A special software option assures that the configuration settings of the primary and backup servers are synchronised at all times. The RTK service can be quickly recovered after an unexpected hardware failure. It is possible to automate the failover procedure.

## ALBERDING SERVICE

Although the Alberding Ntrip Caster is easy to install and operate, you may decide to let IT professionals operate the service for you. Alberding GmbH has many years of experience in operating Internet servers and offers you to provide the RTK service on a dedicated rented server.

## YOUR ADVANTAGES:

- Independence from equipment manufacturers
- Easily extendable service
- Web-based administration and monitoring
- Automatic nearest base station selection
- High service availability and reliability

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