septentrio

GNSS solutions for Survey & GIS

High precision

Robust and Reliable

Easy-to-integrate

"Septentrio's products have never let us down. Always reliable and easy to use"

- Bjørnar T. Sund, Sales Manager, NavSys

Why Septentrio?

BEST ACCURACY AND AVAILABILITY

The GNSS+ suite of positioning algorithms makes the most of the available satellite signals. Precise and reliable in the most challenging environments: high multipath, RF interference, elevated iono activity and vibration.

USE YOUR OWN DEVICE

Cable-free connectivity so you can:

- Connect to the on-board web server
- Log data internally or over Bluetooth
- Monitor over Ethernet or WiFi
- Receive correction data over cellular, UHF radio, WiFi or Ethernet.

TUNE TO YOUR NEEDS

Altus products offer multiple connection modes and flexible configuration as a rover or a base station. Low-power consumption and long battery life mean reliable and accurate positioning for all-day operation in the field.

EASY TO INTEGRATE

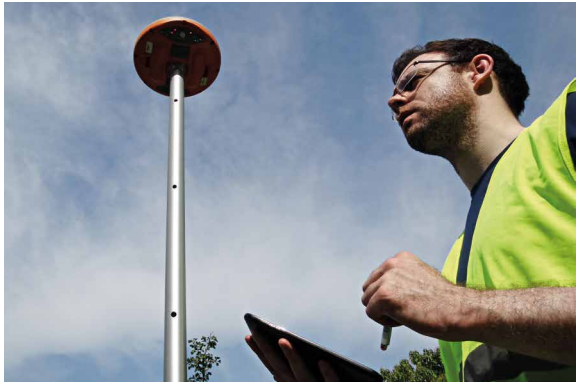
Thanks to Septentrio's open architecture, Altus products are compatible with most common third-party hardware and software solutions which maximises the use of existing equipment and drives down the cost of ownership over the lifetime of the device.

High Precision Surveying & GIS

In difficult environments, Septentrio's GNSS products give accurate and reliable RTK positioning

Survey

GIS



Straightforward upload to the cloud

ArcGIS Online

GNSS Rover

Survey on land with smart antennas **(Altus APS3G and Altus NR3)** or in the air with ultra-low power GNSS OEM boards **(AsteRx-m2 and AsteRx-m2 UAS)** in a drone. These high-spec rovers can be used for real-time RTK positioning or off-line post processing. They are designed to work seamlessly with third-party software to automatically update geographic data bases.

GNSS Base Station

As well as the dedicated PolaRx5 family of base stations for reference networks, the **Altus APS3G**, **Altus NR3** and **AsteRx-U** can also be configured as field base stations. This ensures straightforward setup and no compatibility issues.

PinPoint data collection

With the **PinPoint GIS app** on your own device, you can forward data from Septentrio survey receivers to any other software running on your tablet or hand-held device.

Altus APS3G smart antenna

High-performance, all-in-view, GNSS base and rover receiver for survey

IT'S GOT THE BASICS

- Multi-constellation, multi-frequency RTK capability
- L-band for TerraStar worldwide corrections
- Bluetooth and cellular modems
- Rugged IP67 housing
- UHF Radio

... AND PLENTY MORE

- Up to 14 hours operation on a single battery charge
- Rover and Base station operation
- AIM+ anti-jamming and monitoring system
- Open solution for easy integration with third-party control software

> The Altus APSG3 has proven itself in the field time and again for accuracy and reliability

- Christoph Attenberger,
Josef Attenberger Gmbh, Germany

Altus NR3 network rover

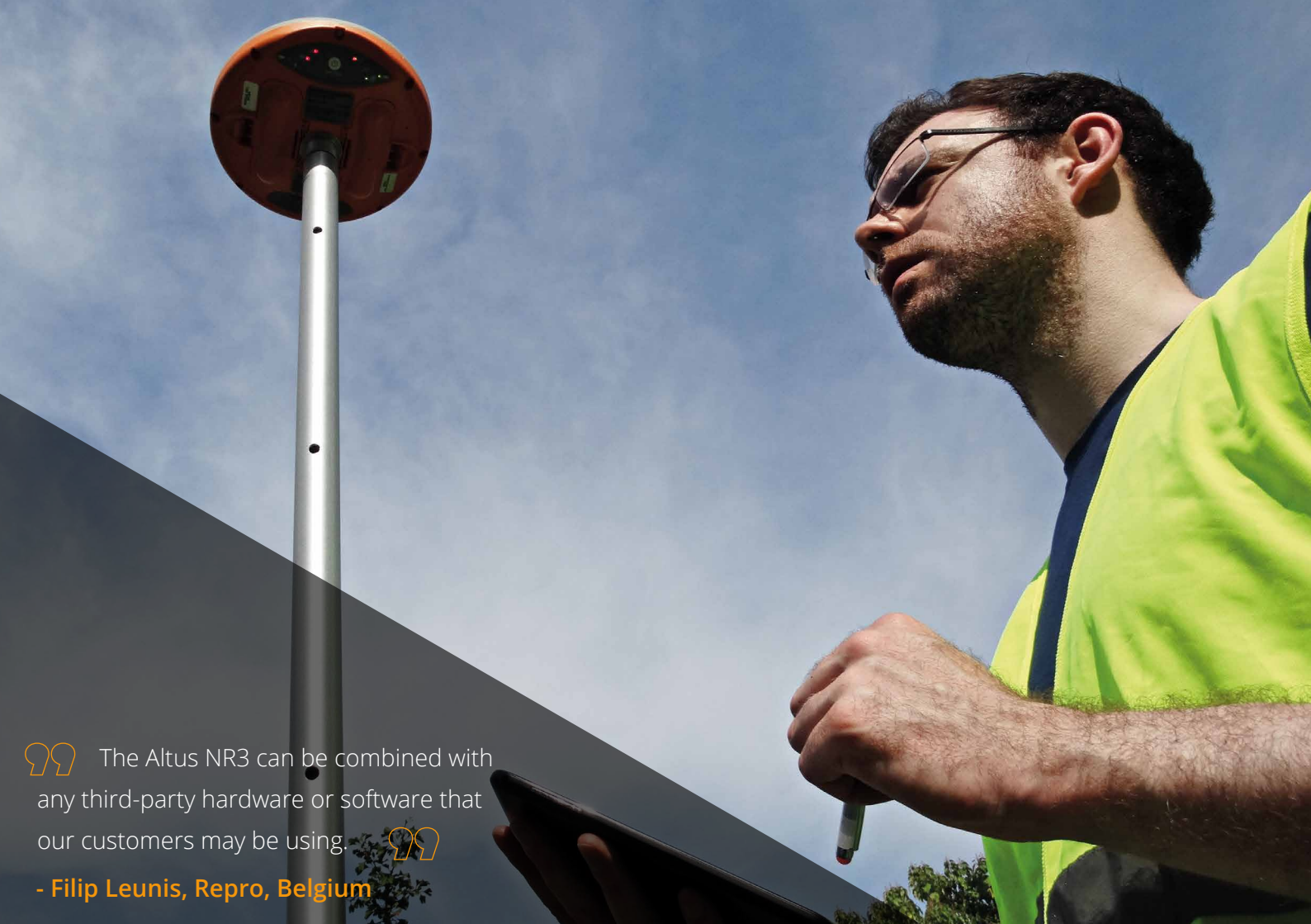
Light and portable, quad-constellation rover ideal for RTK networks

IT'S GOT THE BASICS

- GPS, GLONASS, Galileo, BeiDou and IRNSS, multi-frequency receiver
- Bluetooth, WiFi and cellular modems
- Rugged IP67 housing
- Integrated Web UI

... AND A WHOLE LOT MORE

- Quad-constellation, multi-frequency RTK
- All-day operation with hot-swappable batteries
- AIM + anti-jamming and monitoring system
- Direct data synchronization to the cloud
- 16 GB on-board logging
- Rover and base station operation
- On-board basic data collection



"The Altus NR3 can be combined with any third-party hardware or software that our customers may be using."

- Filip Leunis, Repro, Belgium

AsteRx-m2 GNSS engine

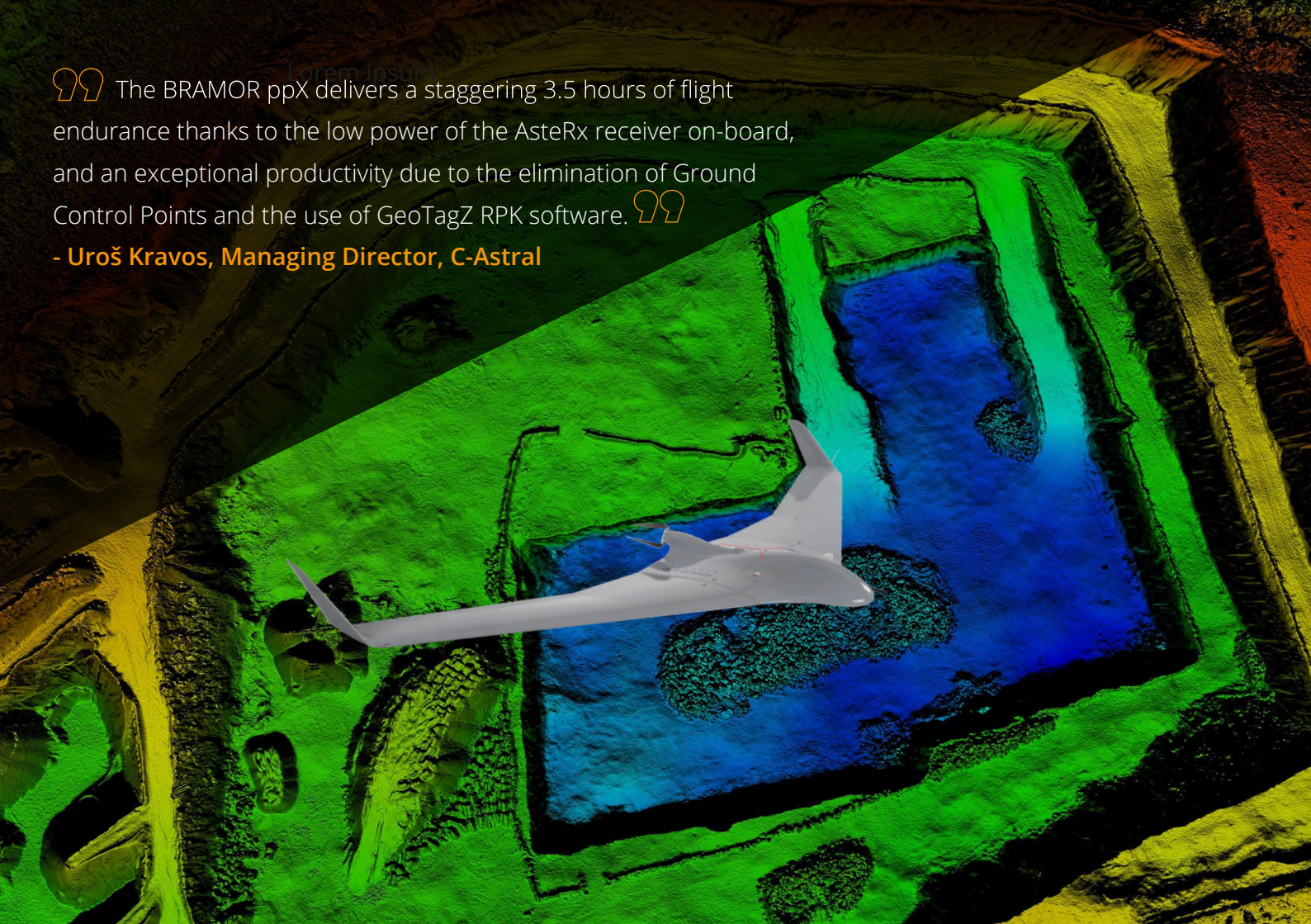
Compact, high-performance and ultra-low power GNSS engine ideal for integration in UAS, mobile survey solutions and demanding industrial applications.

IT'S GOT THE BASICS

- 28 g / 0.987 oz and smaller than a credit card
- GPS, GLONASS, Galileo, BeiDou and IRNSS, multi-frequency receiver
- 4 serial ports, USB, 2 camera shutter event markers
- Centimetre-level accuracy with TerraStar or RTK corrections
- Less than < 800 mW multi-frequency RTK operation

... AND THAT'S NOT ALL

- Accuracies scalable to your application
- AIM+ anti-jamming and monitoring system
- Industry-leading ultra-low power consumption
- Easy-to-integrate with open interface and extensive toolset
- GeoTagZ software for aerial survey



Lorem ipsum

“The BRAMOR ppX delivers a staggering 3.5 hours of flight endurance thanks to the low power of the AsteRx receiver on-board, and an exceptional productivity due to the elimination of Ground Control Points and the use of GeoTagZ RPK software.”

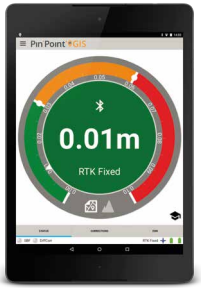
- Uroš Kravos, Managing Director, C-Astral

PinPoint data collection

Bridging the gap between accurate and reliable GNSS positioning and data collection functionality on any platform

PinPoint-GIS App

Simple setup: just launch the app and connect to your Septentrio receiver. The PinPoint-GIS App overrides your device's built-in GPS to provide you with GNSS positioning from your Septentrio receiver. The accuracy widget displays position accuracy and mode for status monitoring at a glance.

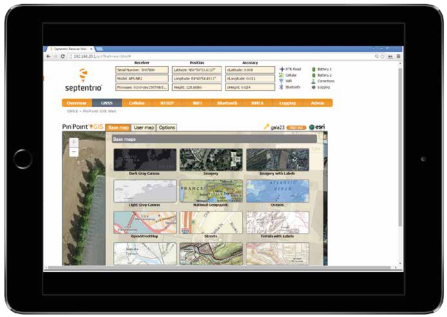


PinPoint-GIS App

PinPoint Web

Available on your Altus receiver, PinPoint Web is an easy way to get accurate and reliable GIS data. No additional software is needed.

Simply open a browser on your device, connect to your Altus receiver to get access to actionable GIS data in ArcGIS online or CSV data collection on the receiver.



PinPoint Web

Survey and GIS collection

The Altus APS3G and Altus NR3 are compatible with most control software:

MicroSurvey FIELDGenius
DigiTerra EXPLORER
EZSurv®
CARLSON SURVCE
esri ArcGIS Online
AUGVIEW augmented technology
TERRAGO
HYDROMAGIC

Seamless integration with third-party tools

Post Processing Software

- Carlson Survey GNSS
- EZSurv GNSS Post-Processing
- Geo++ GNNET-POST
- Waypoint GrafNav

Other Tools

- ArcGIS Pro
- MapScenes System
- Carlson CSI Mobile
- TEQC Toolkit

Base stations

Getting RTK correction data to your receiver

The Altus APS3G and Altus NR3 are just as happy operating as base stations as they are as rovers. Both have on-board GSM modems and either WiFi or UHF so, no additional kit is required for transfer of correction data to the rover for realtime RTK.

For offline post-processed RTK, all the necessary data can be logged on-board the receiver at the touch of a button.

Altus as a base

Altus APS3G

- All-in-one base and rover functionality
- UHF and Bluetooth radios
- Cellular modem
- Up to 14 hrs operation on a single battery charge
- Up to 32 GB data logging on removable SD card

Altus NR3

- All-in-one base and rover functionality
- WiFi, Bluetooth and cellular modems
- Continuous operation with hot-swappable batteries
- 16 GB data on-board data logging
- One-touch data logging

AsteRx as a Base

AsteRx-U

- All-in-one base and rover functionality
- WiFi, cellular modem, Bluetooth and UHF radio
- 8 GB data on-board data logging

> Septentrio's unique combination of a high-quality GNSS receiver for the drone and an easy-to-use base station allows us and our customers to focus on getting the job done – accurately, easily, safely.

– Jan Leyssens, Managing Director, Airobot

	SMART ANTENNAS		OEM
			
	Altus APS3G	**Altus NR3**	**AsteRx-m2**
	High-performance, low-power smart antenna rover units that can also be configured as base stations.		Smaller than a credit card receiver for integration in UAS**, mobile platforms and for surveying applications. Excellent reliability and industry-leading low-power consumption which includes AIM+ anti-jamming technology
Signals	L1/L2/L5 GPS, GLONASS BeiDou, Galileo, L-Band	L1/L2/L5 GPS, GLONASS BeiDou, Galileo	L1/L2/L5 GPS, GLONASS BeiDou, Galileo, L-Band
Communications	Cellular, Bluetooth, UHF, 2 x RS232	Cellular, WiFi, Bluetooth, RS232, USB, Ethernet	3 x RS232, USB, event markers
Size	178 x 89.7 mm / 7.0 x 3.5 in	167 x 69 mm / 6.6 x 2.7 in	47.5 x 70 x 7.6 mm / 1.87 x 2.75 x 0.29 in
Weight	1.16 kg / 2.5 lb.	780 g / 1.7 lb.	28 g / 0.987 oz
Data logging	Removable SD (max 32 GB)	16 GB on-board logging	NA
Power consumption	Up to 14 hours on single battery charge	6 hours on single battery charge	< 800 mW typical
TerraStar PPP	Yes*	No	Yes*
Base station operation	Yes*	Yes*	Yes*

* Optional feature

** For UAS integration, a specially designed version exists: AsteRxm2 UAS

INTEGRATED

AsteRxU

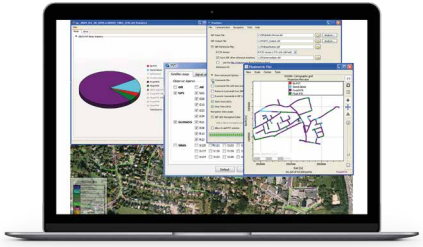
All-in-view Multi-frequency, GNSS positioning together with GNSS Heading, L-Band positioning & wireless communications within a rugged IP67 housing for the broadest range of applications.

Signals	L1/L2/L5 GPS, GLONASS BeiDou, Galileo, L-Band
Communications	WiFi, 4 x RS232, USB, Ethernet, cellular modem
Size	164 x 157 x 54 mm / 6.46 x 6.18 x 2.13 in
Weight	1.16 kg / 3.30 lb.
Data logging	8 GB on-board logging
Power consumption	1.8 - 4.7 W
TerraStar PPP	Yes*
Base station operation	Yes*

SOFTWARE

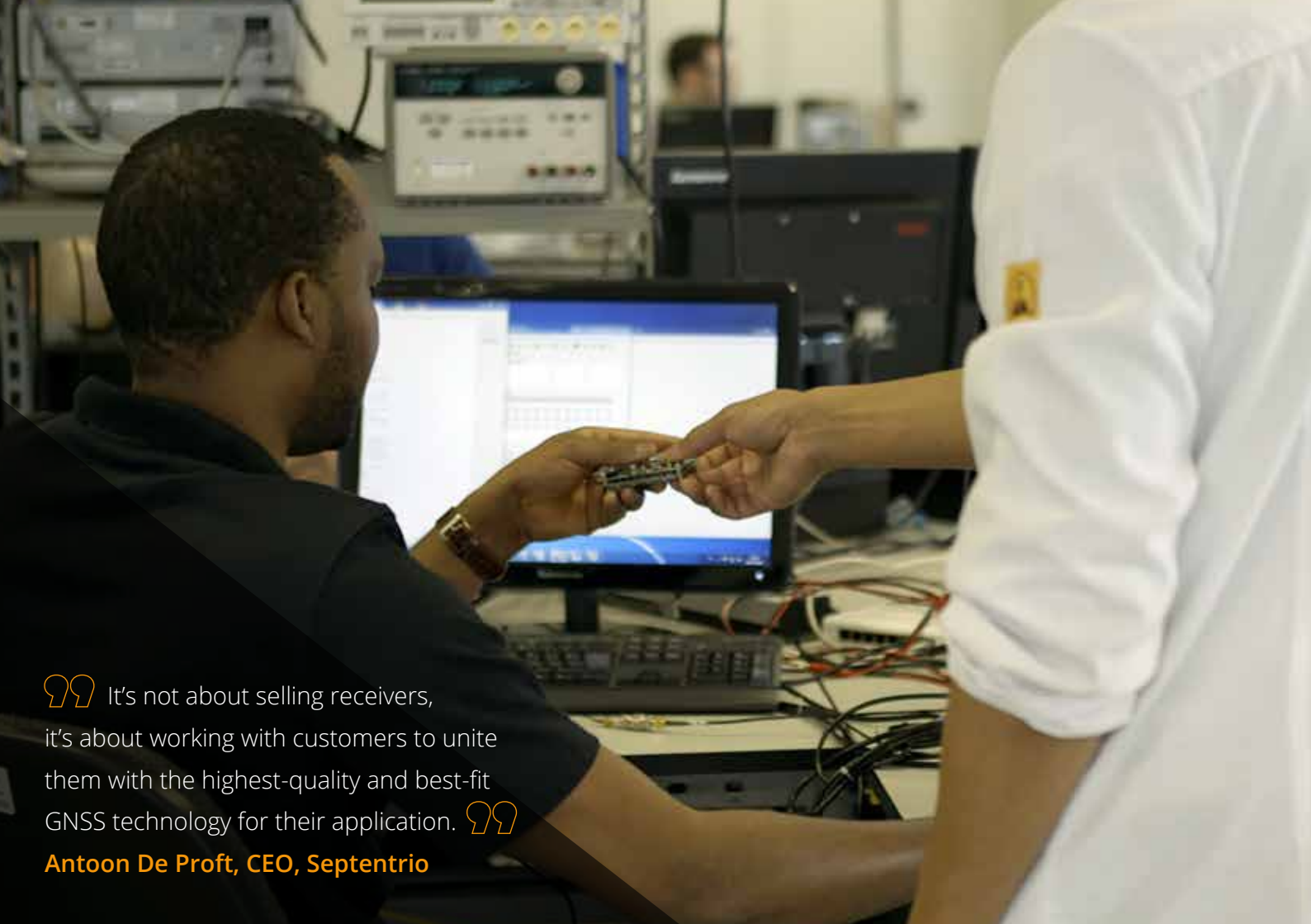
PinPoint data collection

PinPoint bridges the gap between accurate and reliable GNSS positioning and GIS functionality on any platform.



PP-SDK

PP-SDK is a professional SDK that includes all the necessary tools to incorporate postprocessing functionality into your own applications and products.



“It’s not about selling receivers, it’s about working with customers to unite them with the highest-quality and best-fit GNSS technology for their application.”

Antoon De Proft, CEO, Septentrio

About Septentrio

On land, at sea and in the air, Septentrio continues to set the industry benchmark for GNSS positioning solutions. By combining easy-to-use technology with robust hardware, users in the marine, mining, surveying and many more industries trust Septentrio's AsteRx, PolaRx and Altus product lines for centimetre-level RTK position accuracy in the most challenging enivronments.

UAV & Mapping

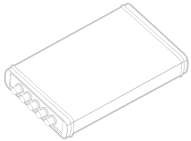
Scientific & Reference Stations

Machine control & Automation

septentrio

AsteRx
OEM & integrated GNSS receivers

Altus
Surveying & GIS equipment



PolaRx
GNSS reference stations

Software
GNSS software solutions

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