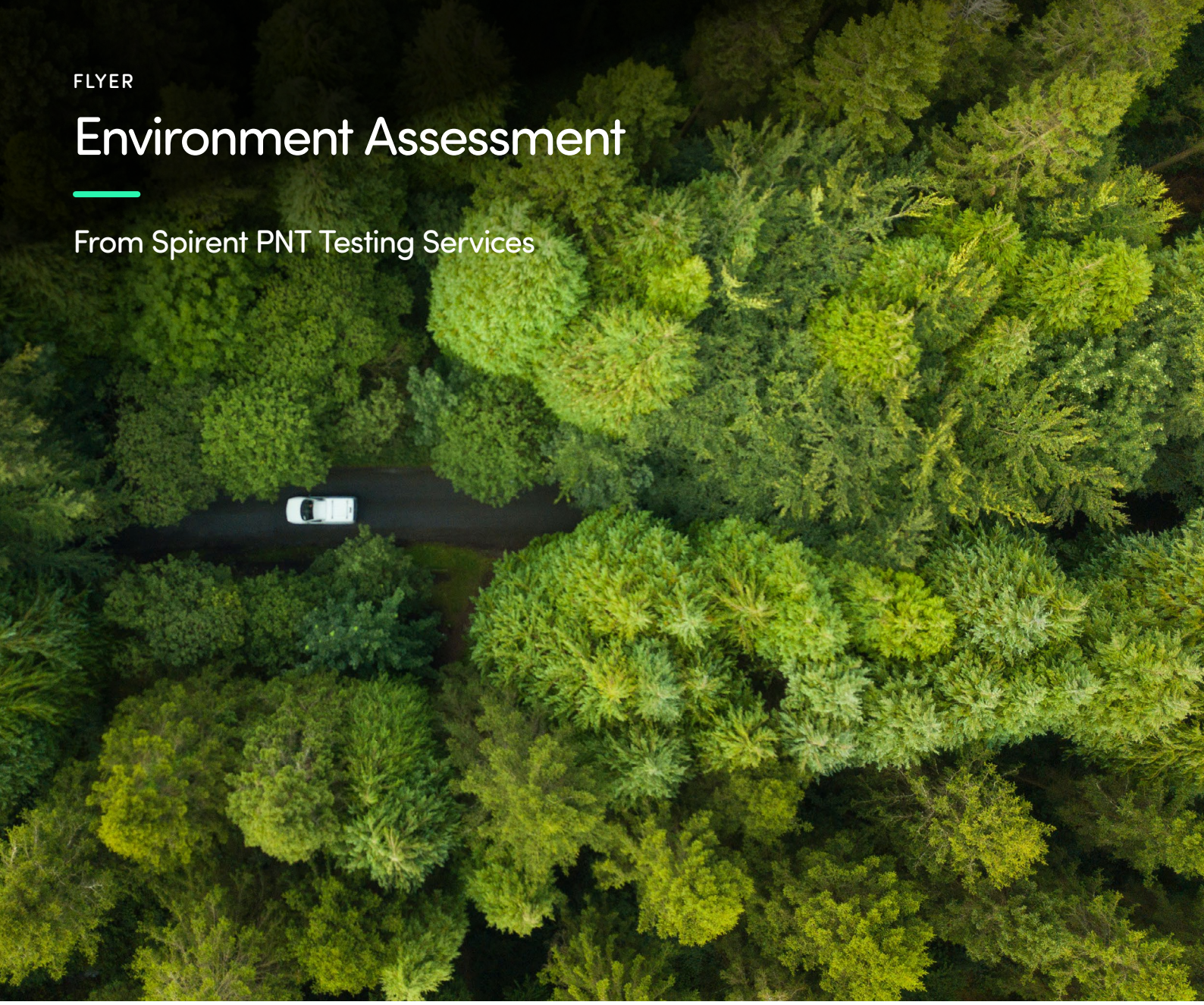
FLYER

Environment Assessment

From Spirent PNT Testing Services



Assure your real-world performance

Understand your real-world PNT environment to identify the best locations for GNSS antennas, RTK ground reference stations, and other GNSS-reliant equipment. An Environment Assessment from Spirent will help you to:

De-risk your operations:
by understanding which areas of your environment may be vulnerable to GNSS interference, and deploying equipment accordingly

Improve operational efficiency:
by mitigating the impact of multipath, obscuration, radio frequency interference (RFI) and other vulnerabilities on your GNSS-reliant operations

Address issues quickly:
by accurately tracing the source of any unwanted or unexpected GNSS interference, and taking swift action to resolve it

spirent™

Use Case:
Assuring Mining Operations

A mining industry OEM uses GNSS for automated equipment operation. Open pit mines can obscure GNSS signals, harming the equipment's ability to operate continuously.

Spirent was asked to predict daily GNSS performance and provide guidance for mission planning. We provided a heatmap of predicted DOP values throughout the day, using a 3D terrain model, environmental factors and satellite data.

As a result, the OEM was able to increase operational efficiency by ensuring sufficient GNSS performance for each piece of automated equipment.

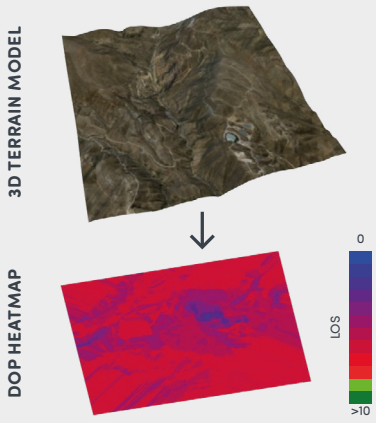
How it works

Spirent engineers will assess your operational environment to uncover issues that might affect the performance of your GNSS antennas, receivers and other PNT equipment. Depending on your needs, we can assess your environment for the following factors:

- **Multipath and obscuration:** We'll use Spirent Sim3D software to model the physical characteristics of your environment, including landscape features, buildings and building materials. Realistic simulation of GNSS signal paths through your environment will highlight areas susceptible to multipath and obscuration effects that could impact positioning accuracy and receiver performance
- **Radio frequency interference (RFI):** We'll conduct a site survey with RFI recording and detection equipment to identify the existence and source of in-band and adjacent-band RFI. You'll receive a detailed report with recommendations for mitigating its impact
- **Dilution of Precision (DOP):** We'll conduct a site survey over a number of hours to determine areas and times where visible satellite geometry results in dilution of precision, potentially contributing to degraded positioning accuracy

You'll receive a detailed report with heatmaps and mitigation recommendations, tailored to your intended use of GNSS equipment in your operational environment.

Note that all of our Services can be closely tailored to your needs, so if you don't see exactly what you need in the menu above, please do contact us to discuss your specific requirements.



Why Spirent PNT Testing Services?

Spirent has spent over 30 years at the forefront of PNT, working with the defence, space, and commercial industry sectors to evaluate and test PNT solution performance.

Our test engineers and consultants have many years of professional test experience, combined with in-depth knowledge of PNT testing hardware and software. We can help you get started faster and make full use of Spirent's expertise to assure every aspect of your product's PNT capabilities.

Contact us to discuss your PNT test programme today.

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Contact Us

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