

Constellator

Multi-constellation GNSS simulator



Control Your Sky

The expansion of GNSS Constellations and Satellite Based Augmentations Systems has provided receiver developers and integrators with more options and more complexity than ever before.

Growing satellite fleets and SBAS enhancements on several continents provide opportunities to push receiver performance (from TTFF to accuracy and stability) to unequalled levels. All the while, navigation security and vehicle automation objectives

make integrating position and velocity information an even more crucial component of overall system success.

But more constellations, more frequencies, more modulations and more codes make developing and testing tomorrow's receiver a more demanding task. And for some applications, the risks for a receiver of being jammed and spoofed during its service life are higher than ever and require developing and testing of complex mitigation strategies.

- ✓ Extensible up to 660 L1CA equivalent signals simultaneously
- ✓ Receiver trajectories with extreme dynamics
- ✓ Hardware-in-the-loop testing at 0,1 to 1000 Hz refresh rates with zero-effective latency
- ✓ Full time and location control
- ✓ Extensive simulation options
- ✓ Background noise, interference & jamming
- ✓ Spoofing (2 units)
- ✓ Atmospheric propagation errors
- ✓ Satellite errors
- ✓ Multipath and obscuration
- ✓ On-the-fly scenario modifications
- ✓ Multi-trajectory support

That is why Syntony created Constellator. Designed to test receivers against the demands of the future, it matches top-end processing performance and RF quality with utmost flexibility in simulation control.

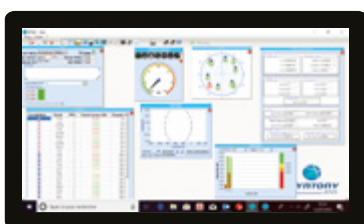
Corner cases. In addition to performing fair weather tests, Constellator was designed to subject receivers to suboptimal conditions, extreme situations and combinations of errors difficult to access in real world tests. All of it finely controlled and indefinitely repeatable.

A team-player. Constellator is compatible with other best in class test solutions to provide the GNSS component in end-to-end system tests, including with hardware in the loop.

A future-proof investment. The core of Constellator is its software, ensuring that no matter what new constellations, satellites and codes the future brings, it will be able to handle them. Most of functional upgrades will then be software-only.

Affordable TCO. Hardware maintenance, calibration, and support at affordable prices, providing to Constellator's users a quick ROI, and transforming it into a profitable investment

Standard and Kythnos version: Kythnos version is proposed as entry-level product, without any option other than the signals and constellations.



Constellator's GUI allows fine-grained control over every aspect of the simulation and provides real-time feedback at run-time.



Constellator can be delivered in different form factors, all remotely accessible via Ethernet.



More info on syntony-gnss.com

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