

BROADSIM'S REAL-TIME TERRAIN EFFECTS

Application Note

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Intro

Establishing realistic terrain effects within a Navigation Warfare (NAVWAR) simulator is becoming a highly sought-after feature when testing Positioning, Navigation, and Timing (PNT) systems for the warfighter. The BroadSim Product Family now provides a real-time Terrain Plug-In solution to create scenarios with terrain attenuated threat signals, i.e., jammers, spoofers, or repeaters. Simply just add the Terrain Plug-In to your threat infested scenario and you will immediately have real-time terrain effects throughout your simulation.

At a 50 Hz update rate, the user-interface of the Terrain Plug-In displays:

1. A terrain profile of the vehicle and the threat (selected from the dropdown menu),
2. the position of the threat and UUT on a map,
3. and the attenuation for each signal.



Conclusion

The Terrain Plug-In allows the user to easily replicate similar situations from real-world events or field tests, such as NAVFEST or PNTAX, without needing to know terms like knife-edge diffraction or smooth earth diffraction. Replicating real-world situations and field tests in the simulation environment saves time, money, and resources by allowing developers and users to test PNT systems at any time of the year. This capability was designed so that manufacturers and end-users can better develop and test cutting edge PNT solutions to protect and enable the warfighter.

Don't let the capabilities of your simulator hold you back from testing your PNT system requirements!

For more information on the Terrain Plug-In or any other BroadSim Product Family capabilities, please contact Orolia Defense & Security.