

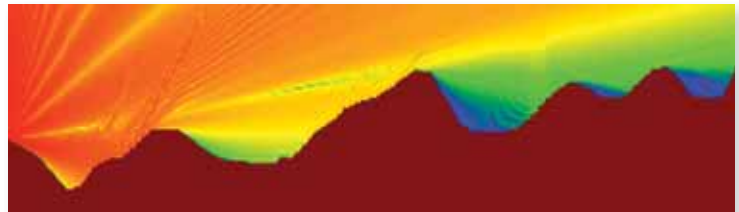
# Wireless InSite®

## Wireless EM Propagation Software from the Leaders in High-Fidelity Propagation

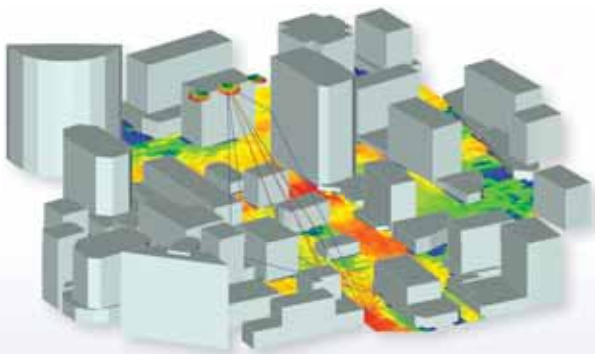
Turn to Remcom for electromagnetic propagation expertise and tools that improve productivity and efficiency. With each new release, **Wireless InSite** performs faster and handles ever more challenging computations.

**Wireless InSite** is site-specific radio propagation software for the analysis and design of wireless systems for communication, networking, sensors and numerous other applications. It provides efficient and accurate predictions of propagation and channel characteristics in complex urban, indoor, rural and mixed path environments, and includes high-fidelity and real time options.

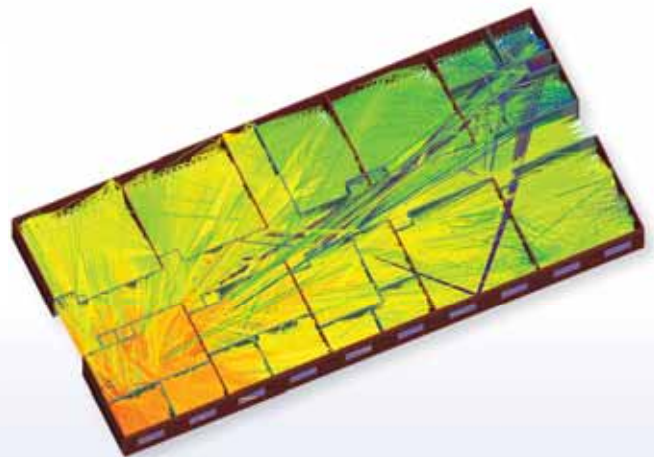
Wireless InSite provides RF engineers with the tools to design wireless links, optimize antenna coverage, and assess key channel and signal characteristics. Applications range from military defense to commercial communications.



*Modeling of the propagation loss over an irregular terrain using Moving Window Finite Difference Time Domain.*



*Wireless InSite has the ability to model propagation loss throughout a city. Antenna patterns can be imported and displayed as well as the dominant paths between a transmitter and receiver pair.*



*Model interior floor plans within Wireless InSite. This is an example of a typical office building with a WiFi transmitter in one office, showing path loss and the dominant paths from the transmitter to various points throughout the floor.*

Visit [www.remcom.com/wireless-insite](http://www.remcom.com/wireless-insite) for a detailed feature list, system requirements and licensing information.

## Multiple Versions to Meet Varying Needs

### Wireless InSite Standard

Suite of high-fidelity propagation models based on ray tracing and other computational techniques. Models predict numerous characteristics of the signal and channel in urban scenes (indoor and outdoor) or over rough terrain.

### Wireless InSite Real Time

Suite of models that balance fidelity and speed, providing site-specific urban propagation in a fraction of the time, with typical point-to-point predictions in less than a millisecond.

### Wireless InSite Professional

Bundles the full suite of models from Standard and Real Time versions.

### Wireless InSite APIs

Remcom offers APIs to our Full 3D Ray Tracing model in the Standard version and to our full Real Time Suite. Users can develop their own custom applications and call Remcom's powerful propagation models through a plug-in DLL. Flexible licensing terms can be provided for partners interested in reselling products that use Wireless InSite plug-in models (contact Remcom for more information).

## Key Features and Outputs

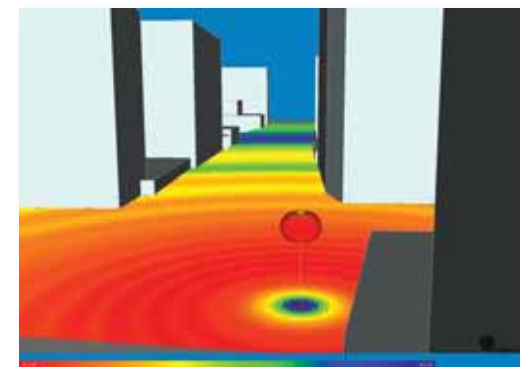
- Propagation from 200 MHz to 100 GHz
- Library of common antenna patterns
- Library of common building and terrain materials
- Import XFDTD® far zone patterns
- Import terrain data from DTED and DEM
- Import city data from DXF and shapefiles
- Several models support foliage effects
- Overlay output on maps and aerial photos
- Communication channel analysis tool and throughput toolbox for LTE and WiMAX
- Multi-processor, multi-threading and GPU acceleration
- Received power and path loss
- Support for receiver grids, routes or points
- Propagation path displays
- Electric field magnitude and phase
- Power delay profile
- Complex impulse response
- Delay spread
- Time and Direction-of-arrival
- Electric field vs. time and frequency
- Carrier/interferer ratio
- Strongest base to mobile
- Animated movies of fields vs. time
- Animated movies of ray paths vs. time

## New in Release 2.6

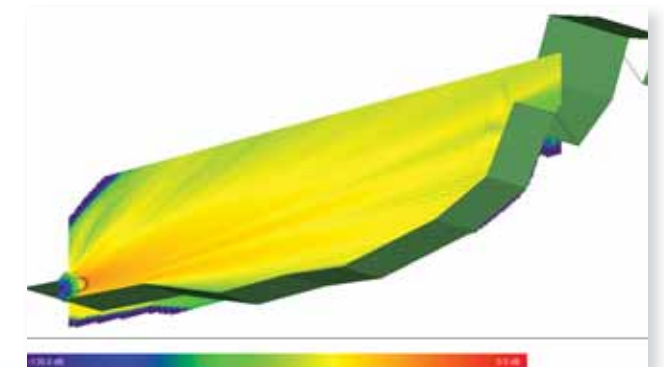
- New X3D Ray Model with Multi-Threading and XStream® GPU Acceleration
- Moving Window FDTD (MWFDTD) high-fidelity model now with XStream GPU and complex antennas
- Ground bounce effects added to Wireless InSite Real Time
- New data throughput toolbox for WiMAX and LTE
- Exact Path correction in X3D provides speed of SBR but geometric accuracy of image theory
- Atmospheric absorption in X3D extends to 100GHz
- New post-processing of multiple transmitter results

▶ Visit [www.remcom.com/wireless-insite](http://www.remcom.com/wireless-insite) for more details

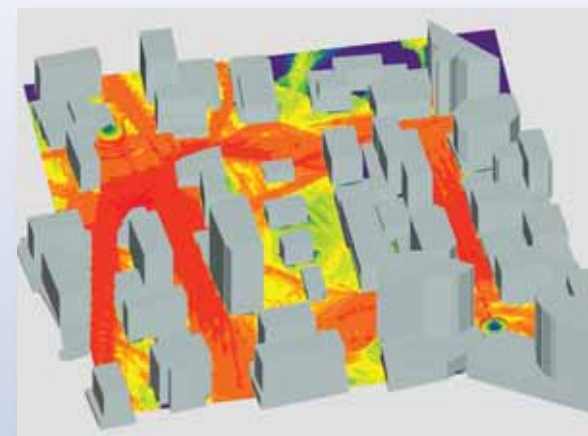
See multi-threading and GPU benchmarks at [www.remcom.com](http://www.remcom.com)



Addition of ground reflections in line-of-sight increases fidelity of Wireless InSite Real Time.



Realistic antenna radiation and GPU acceleration greatly enhance the usability of the high-fidelity MWFDTD model.



Estimate and display data throughput for LTE or WiMAX using basic channel characteristics and strongest received signal from identified base stations.



Calculate and display throughput along a route through an urban area.

## ■ The Remcom Difference

### Customer Focused

Remcom is devoted to listening to our customers and understanding their needs, building requested features directly into the software with each new release. And since we've been providing EM expertise and solutions since simulation software became a reality, you can be confident that many years of experience have gone into the design and functionality of the products we create and the way we support them.

### Personal Attention

Our reputation for providing excellent and accessible technical support is a result of the talent we recruit and our willingness to put our best people in touch with customers in need. When you call Remcom for support or even just for advice, you speak directly with our most respected engineers.

## ■ Remcom Discussion Forum:

Remcom's Discussion Forum allows you to engage with other EM Simulation professionals and Remcom's own experts. Go to [www.remcom.biz/forum](http://www.remcom.biz/forum) to view discussions as a guest, or join the community to participate and post your own comments. Registration is fast and free!

*Remcom has been leading the EM market with innovative simulation and wireless propagation tools for 15 years. In addition to our flagship product, XFtd, we offer a suite of innovative software and services, accessible and responsive support provided by a staff of experts, and comprehensive training. Our family of products includes:*



**XFtd**<sup>®</sup>: 3D EM simulation software package that provides engineers with powerful and innovative tools for modeling and EM software simulation.



**Wireless InSite**<sup>®</sup>: A radio propagation analysis package for analyzing the impact of the physical environment on the performance of wireless communication systems.



**XStream**<sup>®</sup>: GPU acceleration using NVIDIA's CUDA architecture dramatically speeds numerical computations.



**VariPose**<sup>®</sup>: A geometric modeling package for the manipulation and refining of high-resolution human mesh models for the medical and biomedical markets.



**XGtd**<sup>®</sup>: A high frequency GTD/UTD based package for the design and analysis of antenna systems on complex objects such as vehicles and aircraft.



**Rotman Lens Designer**<sup>™</sup>: A tool for the design, synthesis, and analysis of Rotman Lenses.

Visit [www.remcom.com](http://www.remcom.com) for more information

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