

## WHAT IS HTZ communications?

**HTZ communications** is ATDI's flagship RF engineering software. This new edition of world leading RF design and spectrum engineering solution includes several ground breaking features such as **AUTOMATIC RADIO NETWORK PLANNING, GIS ENGINE WHICH ENABLES to CREATE HIGH RESOLUTION** building information in raster from Digital Surface Model – DSM samples.

**HTZ communications** is the ideal tool for **PLANNING HOMOGENEOUS AND HETEROGENEOUS WIRELESS NETWORKS**.

**HTZ communications** is the solution of choice for designing spectrum-dependent communication systems such a Cellular Networks (**2G, 3G, 4G, 5G**), **PMR, Broadband** technologies, **BROADCASTING, IoT, SATELLITE, RADARS**, etc.

**HTZ communications** is continuously **EVOLVING** to enrich its features and to introduce support for emerging technologies.

**HTZ communications** can be deployed on standalone computers or in a **NETWORK ENVIRONMENT** with flexible licensing options.

## PERFORMANCES OF HTZ communications

### Automatic Coverage Calculation

The resource intensive process of repetitive and regular network studies is the thing of the past with HTZ communications. These processes can be fully automated and free up the valuable resources to perform other tasks and activities. The automation feature includes GIS data importation from generic GIS formats such as GeoTiff. This is of particular interest for operations where the environment is constantly changing such as those in Open mine environments where the terrain profile is changing on almost daily basis.

The automation engine automatically calculates coverage of individual sites, and then, produce composite coverage, and identify best servers, study overlaps, calculate C/N+I map in dB. For 4G and 5G networks, it also automatically calculates SINR and throughput maps.

For Microwave transmission networks, the automatic microwave path calculation engine sends an email notification if minimum clearance requirement is not met.

All the study results are exported in KMZ and TIF/TFW files and are delivered to a display system in the operations center.

## In-built GIS engine

No longer is it a problem of converting GIS data for RF engineering purpose as long as it is in ATDI solutions.

HTZ communications GIS engine converts the GIS data from formats such as .TIFF, ASCII Grid, and .SHP files into ATDI formats, allowing an easy and efficient use of such data.

The outstanding feature of the GIS engine is the ability to create high resolution building layer using DTM heights. This is based on correlation between DSM and DTM, and thanks to the new option of extracting building samples from DSM layer, dynamic beamforming, and massive MIMO.

### **FUNCTIONS OF HTZ communications**

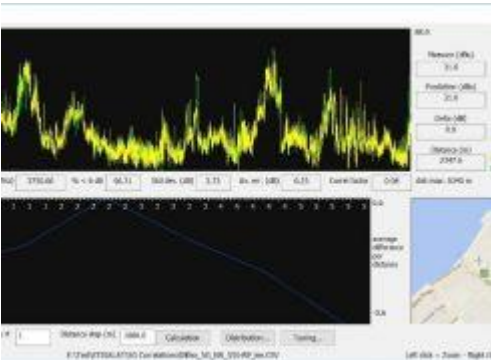
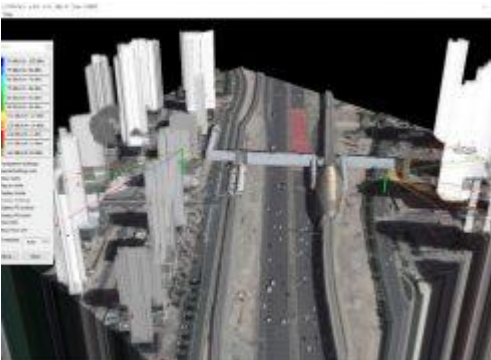
- NETWORK PLANNING AND ANALYSES
- PUBLIC SAFETY NETWORK / PPDR
- UAV/UAS MISSION PLANNING
- MARITIME COMMUNICATIONS

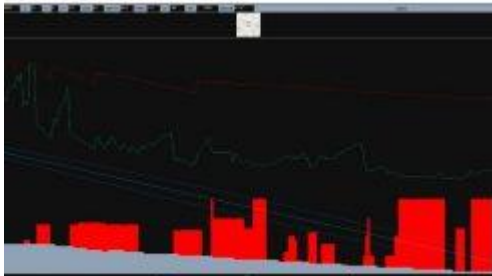
HTZ communications supports designing and modelling of TETRA, PMR/DMR, P25 and PS- LTE with the ability to manage coverage, capacity, site parameters and neighbour planning and optimization.

It ensures the highest level of reliability, availability and resilience of critical comms and assist operators to achieve smooth migration to broadband connectivity and new technologies.

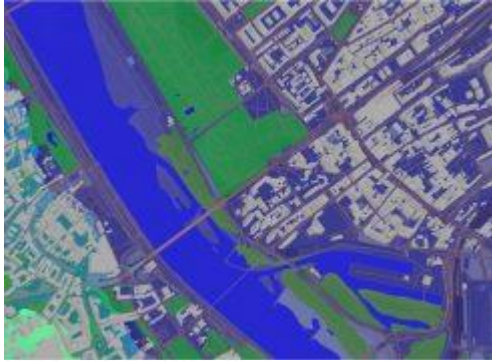
- Coverage planning
- Interference calculations
- Capacity planning
- Automated handover, neighbor list planning and analysis
- Monte Carlo simulations
- Automatic site planning
- Automatic site optimization
- Automatic frequency planning
- Traffic & mobility profile editor (end devices)

### Screenshots





Project: [illegible]  
Location: [illegible]  
Date: [illegible]  
Author: [illegible]



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