ATDI

INNOVATION is essential to providing the very best spectrum management solutions. To achieve this, we follow the latest trends in technology and identify opportunities in key emerging areas.

WE DEVELOP, SUPPLY AND SUPPORT A COMPREHENSIVE SET OF SOFTWARE SOLUTIONS FOR RADIO COMMUNICATIONS AND UNDERTAKE TASKS RELATING TO NETWORK MANAGEMENT, SPECTRUM MANAGEMENT, TELECOM DEFENCE AND DIGITAL CARTOGRAPHY.

OPERATING SINCE 1988, ATDI IS A LEADER IN RADIO NETWORK PLANNING AND MODELLING, SPECTRUM MANAGEMENT AND OPTIMISATION SOLUTIONS.

OUR SUCCESS REFLECTS OUR CUSTOMERS' SUCCESS AND ENABLES THEM TO STAY COMPETITIVE IN A RAPIDLY CHANGING MARKET. WE HAVE THE CAPACITY TO DELIVER COMPLEX PROJECTS ON TIME AS A RESULT OF OUR INSIGHT AND EXPERTISE IN THE FIELD OF RADIO COMMUNICATIONS.

WE OFFER A HOST OF SOFTWARE AND SERVICES INCLUDING:

- Radio planning and optimisation
- Spectrum management and spectrum monitoring
- Support for transmission networks
- Digital cartography tools and datasets
- Communication electronic warfare
- IT-integration support
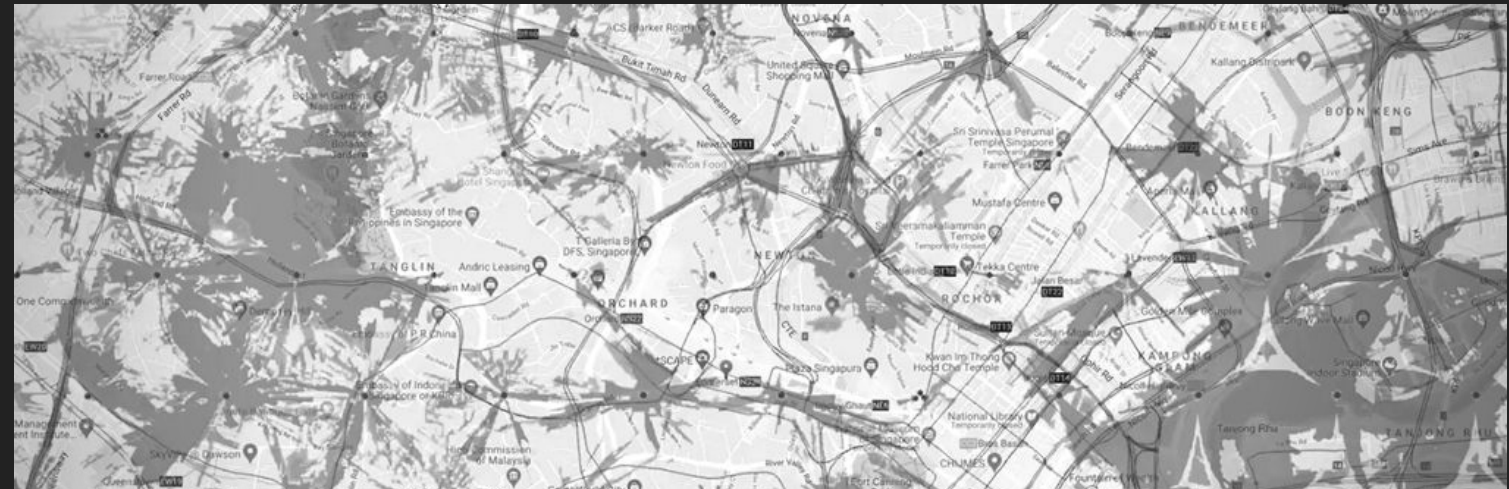
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ISO 9001 2015 CERTIFIED

HTZ COMMUNICATIONS

a RADIO NETWORK PLANNING and SPECTRUM ENGINEERING solution
for network deployment, optimisation and real-time analysis

MODELLING ALL RADIO COMMUNICATIONS TECHNOLOGIES BETWEEN 10 KHZ AND 350 GHZ

4G & 5G, BROADCASTING, HF, VHF/UHF, PMR, MW, SATELLITE, GSM-R/LTE-R, MW, PS-LTE, WI-FI, AERONAUTICAL, MARITIME, RADAR, UAV/DRONES AND IOT

30 YEARS OF EXPERIENCE

ONE INTEGRATED SOLUTION FOR THE ENTIRE NETWORK PLANNING LIFECYCLE

Making sure your network project comes in on time and within budget are essential key performance indicators. This requires precise radio planning, modelling and optimisation, supported by the right map data.

HTZ Communications supports every stage of the network deployment lifecycle and continues to add value once the network goes live.

GIS DATA PREPARATION

A comprehensive map data toolkit for the production of cartographic data. This GIS engine converts formats such as TIFF, ASCII grid and SHP files into ATDI formats for easy use in the software.
Access to ATDI's GIS DB allows users to download pre-converted maps for use in the software. These medium and high-resolution worldwide DTM, clutter and building layers are royalty-free and available to users with a valid maintenance contract.

SITE ACQUISITION

A site database that ranks potential candidate sites according to availability, site costs and coverage targets. This supports technical and administrative data, which are essential to the early stages of the radio network lifecycle.

BEST SITE SEARCH

Supports automated network planning with site candidate selections, allowing network operators to meet enterprise targets for coverage and capacity, even in ultra-dense areas. Additional features include automatic cell planning (ACP) and site placement (ASP) to reduce site selection times and improve results.

UL/DL COVERAGE

Accounting for signal power gains and losses, allows engineers to evaluate attenuation from propagation, antenna and other losses. It considers the percentage of reliability at the cell edge and supports composite, best-server and overlaps and coverage analysis.

TRAFFIC ANALYSIS

Modelling network traffic builds network reliability and robustness. The tool uses traffic maps to ensure the network meets both traffic and subscriber demands. Traffic maps are dimensioned automatically and network congestion is analysed and reported.

INTERFERENCE & FREQUENCY ASSIGNMENT

Undertaking interference analysis for co-channel and adjacent channels allows the engineers to minimise risks by reducing the impact on capacity and link quality. Spurious interference analysis can reduce the signal-noise ratio (SNR) of the interfered receiver. HTZC features a powerful automatic frequency planning function that applies sophisticated optimisation techniques to support automatic frequency carrier and channel allocation.

HANDOVER ANALYSIS

Handovers are a core element in planning and deploying cellular networks. The handover analysis map identifies network improvements and works in unison with the automatic neighbour list function.

DRIVE-TEST ANALYSIS

Comparing drive test data against predictions identifies improvements to the network to eliminate not-spots and to improve coverage. The tool features an automatic propagation tuning model to tweak the network parameters and improve coverage.

REPORTS

Extensive reporting functions from the 'Reports' menu. These include a coverage report giving the best server and interference area statistics for each network element, or a polygon covered details the coverage statistics within a polygon. It can examine the network KPIs and generate statical reports with the results.

HTZ COMMUNICATIONS PROVIDES AN UNMATCHED DEGREE OF PRECISION AND QUALITY TO USERS ACROSS THE RADIOCOMMUNICATIONS INDUSTRY

Supports the latest emerging technologies from a few kHz to 350 GHz

Features a comprehensive library of propagation models including deterministic, empirical and custom models as DLL files

Applies a multi-technology approach to study complex scenarios of coexistence and interference mitigation for spectrum re-farming

Automates for any planning calculations and analysis including coverage, interference and frequency assignments

Offers a high degree of correlation between prediction and measurements in excess of 90%, compared to other radio planning tools

Enables parallel processing to run computations faster on machines with several processors for larger network calculations to improve calculation efficiency

Features advanced 3D GIS data utilisation including 3D-Ray tracing to improve modelling accuracy

Integrates with Google Earth to overlay coverage plots and station lists, including an editable user palette and threshold legend

Provides flexible online or offline license options for standalone and network floating modes in using electronic keys and USB dongle keys

Enables external DB integration including ITU BRI FIC, SNS, FCC, etc

Supports cloud and virtual machine environments

- **SPECTRUM REGULATION**
- **PUBLIC SAFETY NETWORKS & PPDR**
- **MOBILE (2G TO 5G)**
- **BROADCASTING (ANALOGUE/DIGITAL TV AND RADIO)**
- **IOT/SMART CITIES**
- **RAILWAY COMMUNICATIONS**
- **MINING/OIL & GAS NETWORK**
- **AIRPORT COMMUNICATIONS**
- **UAV/UAS & DRONES**
- **UTILITIES**
- **MARITIME COMMUNICATIONS**
- **WINDFARM**
- **TEST/MONITORING**

RADIO ENGINEERS TOOLKIT FOR EVERY RADIO SYSTEM