

# ATDI

**INNOVATION** is key 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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## HTZ WARFARE

a RADIO NETWORK PLANNING and SPECTRUM ENGINEERING SOFTWARE solution for deployment, network optimisation and real-time analysis of tactical military communications

**MODELLING ALL RADIO COMMUNICATIONS TECHNOLOGIES  
BETWEEN 8 KHZ AND 1 THZ**

ACCURATE SIMULATION OF ADVANCED MISSION PLANNING  
INCLUDING JAMMERS, RADARS, DF, INTERCEPTION, UAV/UAS,  
TACTICAL LINKS, HF, VHF/UHF, PMR, MW, SATELLITE, 2G TO 5G, WI-FI AND IOT





Electromagnetic Spectrum (EMS) is widely used for military operations. Competing demands for radio spectrum means it must be strictly coordinated and controlled. Battlespace spectrum management is the planning, coordination and management of EMS, to enable military systems to perform their functions without causing or suffering from harmful interference.

Significant importance is placed on the performance of radio intercept receivers, direction finders and communications jamming equipment. Key features that determine the success of a mission is the ability to intercept or jam enemy communications. And similarly to share information with the command structure without undue interference.

With over three decades of development, HTZ Warfare is a leading military network planning and EW modelling tool. This feature-specific software supports military units around the World. Key functions include:

- Examine links between communication assets and assess the performance of the link in detail. All simulations are based on proven, accurate simulation methods;
- Automated functions to manage repetitive studies and automatically calculate composite coverages and interference analysis;
- Move individual sites and analyse communication capabilities virtually instantly.
- Assess the impact of communication site failures and their impact on the network, so that contingency plans can be included as part of the normal system design process;
- Assess the risk of interception or jamming by known enemy electronic warfare assets;
- Identify network capabilities for moving elements, such as convoys, through hostile territory. Suitable locations for talk-through sites can be easily identified;
- Analyse the operating terrain by using 3D images of the battlefield from every angle;
- Support the complete design of communication networks, including the ability to minimise interference, assign frequencies and generate alternative communication plans;
- Electronic warfare for communications planning can be included by analysing intercept vulnerability, identifying the possible effects of enemy jamming and developing plans to overcome these factors;
- Network changes to any part of a network can be analysed and viewed virtually instantaneously. This includes the ability to assess the effect of failure or enemy action on the network. This supports mitigation planning and reduces the likelihood of communication failures in the field;
- Plans for the deployment of intercept receivers, including intercept coverage assessment and gap identification, maximising the efficiency of deployed sensors or minimising the assets assigned to a given objective;
- Deploy direction finders with best site searching, DF baseline coverage assessment and communications planning between assets. The system can be integrated with DF systems, so that DF hits can be displayed directly on the planner's screen;
- Plan offensive communication jamming missions, including asset optimisation, communications planning and assessments of jamming effects on own communications systems;
- Determine the vulnerable points in known enemy communications systems and prioritise targets for attack.

# HTZ WARFARE

ALL-IN-ONE SOFTWARE  
SOLUTION FOR  
COMMUNICATIONS  
ELECTRONIC WARFARE

## MISSION PREPARATION IN AN ENEMY ZONE

### CHALLENGE

Keeping in touch with headquarters while in enemy territory is an essential part of many military missions.

### SOLUTION

HTZ warfare allows engineers to simulate and evaluate the different route options using automation.

For instance, by identifying the areas with no possible communication with headquarters, routes can be chosen for ground vehicles, helicopters and planes moving at different speeds and using different types of equipment. The entire planning and problem solving is managed in an automated fashion.

# COMMUNICATIONS ELECTRONIC WARFARE

SIMULATING RADIO NETWORKS IN THE WARFARE SAVES LIVES

THE WORLD'S MOST ADVANCED BATTLESPACE  
SPECTRUM PLANNING AND MODELLING  
SOFTWARE FOR TACTICAL MISSION PLANNING  
AND ANALYSIS

Network simulation – for spectrum engineering tactical mission planning and analysis;

Radar detection capability analysis – predicting the areas and elevations for radar coverage;

Jamming efficiency analysis – identifying areas where the jammer can be effective in interrupting enemy communications;

Automation capabilities – the ability to custom workflows to support different end-user requirements or system capabilities. This simplifies interfaces for software users who may not have a radio propagation background;

UAV/UAS mission planning – including integration between ground-to-air and air-to-air services and ability to model coexistence with other communication service users;

Dedicated military functions – including direction finding, jamming and radar features;

Network modelling – to model dynamic military scenarios and featuring on-the-move capability;

Flightpath RF simulation analysis – importing flight-path information and conducting propagation modelling and communication validation.

HTZ WARFARE SUPPORTS ALL  
TECHNOLOGIES & FUNCTIONS FOR  
THE DEFENCE AND SECURITY  
MARKETS, INCLUDING:

- TACTICAL COMMUNICATIONS (ELINT, COMINT)
- UAV/UAS MISSION PLANNING
- MARITIME COMMUNICATIONS
- LMR/PMR/P25/TETRA
- PUBLIC SAFETY NETWORK/PPDR
- HF COVERAGE ANALYSIS
- MICROWAVE LINKS
- SATELLITE & EARTH SEGMENT (GSO/NON-GSO) DESIGN
- RADAR, INTERCEPTION, JAMMING EFFICIENCY

