



astrixTM

Planning your network for the future

ASTRIX is a multi-technology radio frequency (RF) planning tool designed to roll-out, plan and optimise wireless networks. It is developed in close cooperation with major European network operators to ensure performance, scalability, reliability and openness.

ASTRIX scales from a stand alone portable solution to a company wide multi-user system with hundreds of users and a centralized open database.

Teleplan Globe's ASTRIX is a high quality radio planning tool suited for:

- New cellular radio network operators who requires a tool for planning all phases of their new network
- Established cellular radio network operators who require support for expanding, maintaining optimizing and troubleshooting their existing network

ASTRIX Advantages

- Exceptional propagation modelling accuracy. Radio propagation results are the critical factor for all work in a radio planning tool
- Automatic propagation model tuning
- Integrated automatic UMTS network optimization
- Superior speed. This is important for planning efficiency
- Flexible geographical visualization – allowing the user to get the "feel" of the network
- Integrated Network Database – designed for network administration
- Open systems architecture – allowing integration and interfacing with other systems

Network Cost Reduction

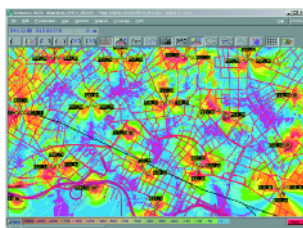
The radio interface typically accounts for up to 80% of the network costs and 80% of the operating costs. It is feasible to achieve a 10% reduction in overall costs by utilising a more effective and efficient radio planning tool.

Radio Planning Functions

Teleplan Globe's ASTRIX is designed to plan any radio system. There are special functions for GSM, GPRS and UMTS, comprising:

- Propagation prediction
- Ray tracing module: WaveSight
- Combined Network Coverage
- Best Server & Number of Servers
- Dual-band/HCL functionality
- Traffic Analysis
- Interference Matrix calculation for automatic frequency planning
- Interference Analysis
- Graphical Neighbour Editor
- Drive test analysis
- Propagation Model Tuning Tool:
 - Interactive loss term visualisation
 - Automatic coefficient tuning
- Data import module:
 - Network data from OMC
 - Network statistics for display
- UMTS Functionality:
 - Network balancing
 - Simulation using numerous active services
 - Pilot pollution detection
 - Noise contributor detection
- Numerous statistical analyses:
 - Service coverage, outage reasons, power levels, interference etc

UMTS pilot Ec/Io Plot >>



- Numerous export formats
- Report Tool
- Radio Link Planning Tool

Advanced Propagation Models

The following propagation models are available: Okumura-Hata, Blomqvist-Ladel, Walfisch-Bertoni and a General Model. Numerous enhancements based on research (COST 231 and internal) are available. ASTRIX performs micro cell predictions taking into account the effect of houses. ASTRIX can be integrated with the WaveSight microcell propagation module. ASTRIX contains a propagation model which successfully predicts multipath (reflections) in areas with challenging topography.

Microcell predictions with building database >>



Geographical display - User Interface

ASTRIX displays radio data in a geographical map in a user-friendly and fast manner.

ASTRIX Provides seamless geographical maps; avoids the problem of separate planning in different mapping zones.

Radio network logistics

Network planning requires a database that holds information on the user's radio network(s). The database can be employed to e.g.:

- Maintain the radio network data
- Exchange data with other applications (e.g. OMC or logistics systems)
- Plan the evolution of the radio network

ASTRIX provides its own database for this purpose. However, because operators may have an existing logistics database, ASTRIX supports interfacing to other databases.

Proven Platforms

ASTRIX can run on SolarisUNIX on SUN workstations and Linux on Intel/AMD Platforms. A portable solution is also available.

Operational Testimonial

ASTRIX is used for planning of:

- UMTS, GSM900/1800, NMT450, TETRA, Microwave and Broadcast networks
- Networks comprising 3000 sites
- Networks, some not yet operational and others active for 10 years

Planning Services

Teleplan Globe can offer radio planning consultancy and training services to suit your needs.

We emphasise our commitment to the transfer of knowledge by active assistance throughout the radio planning process.

GSM Mobile Measurements >>

