



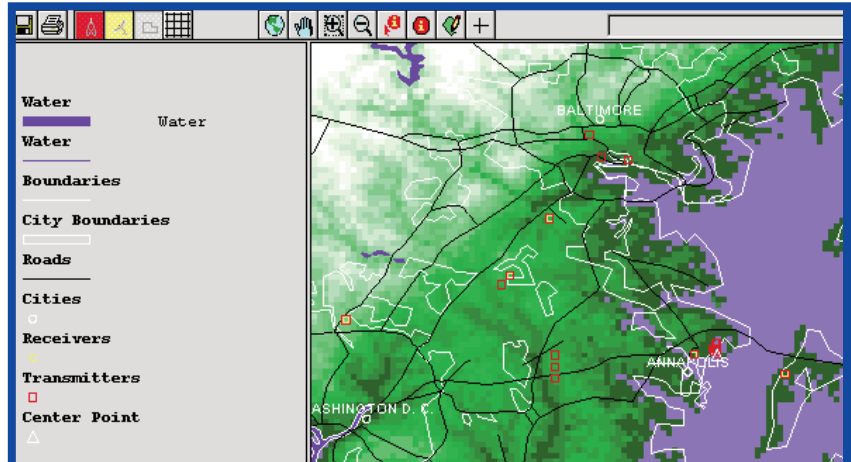
# SPECTRUM XXI

*Spectrum Management  
in the 21st Century*



**SPECTRUM XXI** is a client/server software system, interconnected through a Wide Area Network (WAN), that provides frequency managers with a single information system that addresses spectrum management automation requirements.

The extended connectivity of Spectrum Management offices includes all levels of spectrum management including civilian, military and federal.



**SPECTRUM XXI** provides a “near real time” frequency assignment capability, never before possible, by using a communications network for SPECTRUM XXI clients.

SPECTRUM XXI's frequency nomination and interference analysis algorithms have been validated in numerous spectrum management and communication engineering tools.



**SPECTRUM XXI** is a Windows based, automated spectrum management tool that supports operational planning as well as near real-time management of radio frequency spectrum with emphasis on assigning compatible frequencies and performing spectrum engineering tasks. It uses the latest technology and concepts to overcome the limitations that have plagued frequency management systems for years.

**SPECTRUM XXI** is also available through foreign military sales and has been purchased by several countries including; Latvia, Estonia, Slovenia, Poland and Czech Republic.

## Contacts:



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## SPECTRUM XXI Help Desk

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# SPECTRUM XXI Capabilities

## Frequency Assignment

- Create and maintain permanent, temporary, proposed, and background frequency assignments
- Exchange frequency assignments with other users and administrations
- Reduce assignment preparation time through integrated equipment, analysis, and replication capabilities
- Identify interference-free frequencies based on Allocation Tables, Allotments, actual operational conditions, and bi-directional interference-to-noise calculations
- Determine assignment compliance with technical and administrative standards

## Interference Analysis

- Perform interference analysis considering equipment, locations, terrain, antenna and frequency-dependent coupling
- Predict interference sources and levels for existing or proposed spectrum use
- Display spectrum analyzer simulations with spectrum occupancy and record conflict charts of all assignments
- Create Joint Spectrum Interference Resolution Reports

## Electronic Warfare (EW) Support

- Create, coordinate, and manage Joint Restricted Frequency List (JRFL) inputs and outputs
- Analyze EW impact
- Configure jammers to operate on a single frequency or a band of frequencies using a range of azimuths

## Equipment Certification

- Create and maintain equipment database
- Select equipment from database for analysis
- Analyze equipment against national and international standards

## Frequency Engineering

- Perform point-to-point propagation and link analysis
- Generate radio line-of-sight and received power, terrain-dependent coverage plots
- Select display of terrain elevations, political boundaries, roads, waterways, towns, and stations in user-specified colors
- Perform high frequency (HF) propagation predictions
- Calculate satellite look angles
- Generate spectrum occupancy graphs
- Perform intermodulation/harmonics analysis
- Analyze band assignments
- Analyze space assignments
- Analyze radars
- Perform geomagnetic conversions

## Allotment Plan Generator

- Create frequency lists for user allotments, channel plans, and system tuning capabilities
- Instantly channelize allocation band segments
- Exchange allotment plans with other spectrum planners

