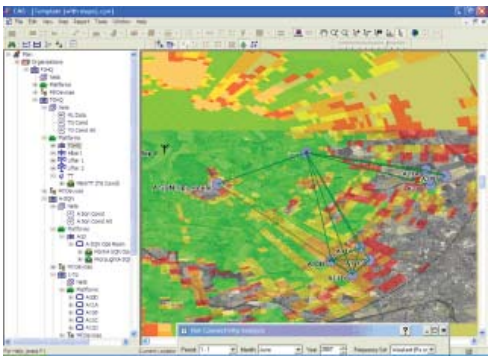
# Theseus
# The Tactical Network Management System

In the modern theatre of operations, an effective, secure communications network is essential for swift and decisive deployment of assets. With a growing range of off the shelf network capable communications equipment, the management system is the keystone for achieving integrated capability.

Feature rich yet simple to use, Theseus provides an integrated suite of powerful, state of the art management tools. A single application links Strike, Fleet and Land, helping to deliver Network Enabled Capability to realise the true potential of any military force.



## Benefits of Theseus

**Simple and intuitive to use**
- Designed specifically for military users, recognising low training burden as a key requirement

**Flexible toolset**
- Compatible with secure digital HF, VHF and UHF radios from major manufacturers
- Hardware "driver" technology allows simple integration of new radio types
- Modular design allows customers to select functionality required
- Theseus architecture easy to upgrade through COTS/MOTS

**Scaleable solution**
- Wide range of operational roles from small tactical mobile units to strategic in theatre joint operations

**Proven track record**
- In service with the British Army and other European armed forces

**Training solutions**
- Range of training packages available, including emulation of managed equipment, allowing classroom training of online monitoring and control functions

## Theseus Toolset

**Deployment Planning**
- ORBAT organisation hierarchy definition using APP6A
- Trunk and Combat Network Radio planning
- Radio propagation and coverage modelling using advanced clutter algorithms
- Rapid Path Profile Analysis
- Radio Coverage maps
- Line of Sight maps
- Highpoint maps

**Equipment Specification**
- User customisable platform and equipment library reduces planning time
- Detailed modelling of comms equipment and platforms including:
  - Radio sensitivity
  - Harmonics
  - Intermodulation products
  - Quietened channels
  - Antenna gain
  - Feeder and Coupler loss
  - Port availability
  - Supported applications

**Cryptographic Management**
- Automated wizard allows rapid cryptographic key assignment
- Multiple concurrent security domains planning
- Software interface allowing full integration with Key Management Systems

**Frequency Assignment**
- Fully automated assignment based on the frequency allocation, with option for manual intervention
- Meta-Heuristic Optimisation algorithms maximise frequency reuse whilst minimising cosite and farsite interference.
- Waveforms supported include:
  - STANAG 4203 (HF Fixed Frequency)
  - STANAG 4204 (VHF Fixed Frequency)
  - STANAG 4292 (VHF Clear Hail Mode)
  - STANAG 4538 (HF 3G ALE)
  - Mil-Std-188-144A Appendix A (HF 2G ALE)
  - Fast Frequency Hopping
  - Band 1, 3 & 4 Trunk networks with variable bandwidth

**Network Planning**
- Supports Voice and Data Networks
- Automatic assignment of IP addresses, subnet addresses and SNMP community names
- Planning of network services, including DNS, DHCP, user applications, and messaging

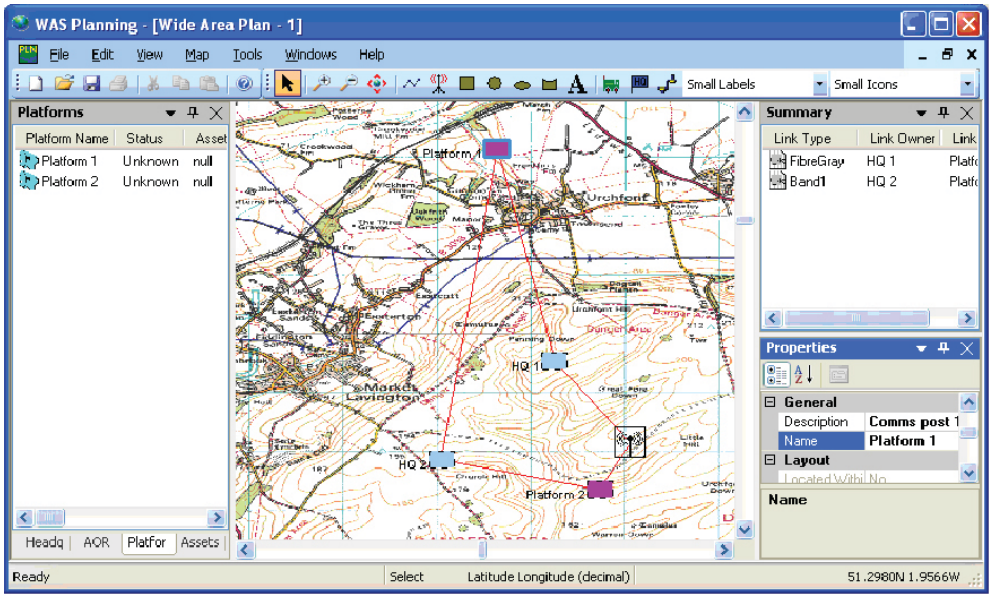
**Trunk Network Planning**
- Identification of installation locations
- Information exchange requirements and network capacity
- Provision of link redundancy
- Monitoring of link status

**Fill Data Generation and Distribution**
- Automated generation of equipment initialisation data
- Fill dynamically updated upon asset re-tasking

**Software Fill Device**
- Distribution of fill data and initialisation of communications equipment
- Enables a Windows Mobile© PDA or Windows XP© Laptop to be used as a fill device

**Situational Awareness**
- Real time display of asset locations
- Publishes feeds from attached radio hardware to a Common Operational Picture

**Wide Area Network Monitoring**
- Network topology discovery via SNMP and COTS proprietary interfaces
- Traffic Monitoring with historical analysis and user customisable real-time alerts
- Network analysis and diagnosis, including critical link detection




**Local Area Network Management**
- Identification of cabling configuration
- Monitoring and control of all communications equipment within a sub-system
- Automatic alerts when equipment fails or is disconnected

**Asset Management**
- Individual items or groups of equipment can be assigned to areas of responsibility
- Equipment history and status can be tracked and viewed
- Future equipment availability information

**GIS Functionality**
- Industry leading ESRI mapping engine (C/JMTK compatible), supporting a range of formats including VMap, DTED, ESRI Shapefiles, BMP, GeoTIFF, IMG, JPEG and GIF
- Full range of coordinate systems supported

**Plan Validation**
- Configurable checkers automatically inform users of human errors in planning processes

**Reporting**
- Comprehensive reporting suite for all areas of communications management
- Automatic generation of reports in HTML, XML and MS Word formats

**FOR MORE INFORMATION CONTACT:**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