

CGL - Compact GeoLocation



GET into IFoIP TECHNOLOGY

Main Functions

- Transmitter geolocation
- Inverse geolocation - Ephemeris estimation
- Advanced geolocation (carrier under carrier)

Main Features

- All bands, all type of interferences and location management
- Hyperbolic geolocation TDOA (Time Difference Of Arrival) & FDOA (Frequency Difference Of Arrival) measurement
- Integrated customizable databases (ephemeris and coverage of most satellites, mirror satellite selection, carrier, reference, stations...)
- Open development environment
- Data acquisition without size limitations
- Data recording and replay
- Elimination of traffic carriers on the secondary satellite
- Map included - Connection with Google Earth compliant

Main Benefits

- Very fast results within minutes
- Non intrusive geolocation within minutes
- Very compact and simple solution
- Very high accuracy
- High reliability
- Easily extensible and adaptative software
- Very easy and intuitive GUI
- High maintainability
- Cost-effective
- Same hardware for IN-SNEC® CSI, CSA, CSM and CGL

Be the fastest and "smarter", to visualize, analyze, monitor and locate the multitude of signals conveyed by communications satellite transponders or by the HF communications. To be successful in solving these complex tasks Zodiac Data Systems provides extensive solutions based on our unique company's integrated hardware architecture, using "state-of-the-art" digital signal processing techniques.

Zodiac Data Systems comprehensive toolbox is composed of Carrier & Signal Inspector (CSI) to visualize up to 1.2 GHz spectrum bandwidth and also detect the carriers. Combined with the Carrier & Signal Monitoring (CSM), spectrum monitoring rules can be defined to alert the user of any QoS damage or the appearance of interference. Each unknown carrier can be characterized with our blind Carrier & Signal Analyzer (CSA) and simultaneously can quickly and accurately locate the interference transmitter's position with the Compact GeoLocation (CGL).

CSI - Carrier & Signal Inspector

The CSI is a real time solution displaying up to 1.2 GHz spectrum with the capability to detect the carriers and to display the noise level. Associated with a QoS option the CSI monitors carriers and display in real time the carrier parameters, constellation and the occurrence of carrier under carrier.

CSM - Carrier & Signal Monitoring

The CSM is an all-inclusive spectrum monitoring solution, providing powerful intuitive GUI to survey and to improve the QoS of satellite communications. In order to deliver the best QoS and fast reactivity, the CSM detects and reports all intrusions in real time, sends alarms and executes user defined actions automatically. The CSM can also analyse a complete satellite transponder or an HF terrestrial band at a very high speed.

CSA - Carrier & Signal Analyzer

The CSA is a high performance full blind analysis solution with the ability to characterize each carrier in the spectrum. Open to customer's applications, the CSA integrates plugins, customized databases and open development environment. In case of carrier under carrier the CSA processes the separation and analysis of the main and the hidden signal.

CGL - Compact GeoLocation

The CGL is a 'state of the art' design, oriented towards ease of operation. The GUI greatly simplifies the complete process with its capability to locate transmitters in "one click". Coupling the CSM capabilities to detect interferences with the autonomous and full automated CGL fast results and accurate positions of interferers are delivered.

ZODIAC DATA SYSTEMS

AEROSAFETY & TECHNOLOGY
Telemetry & Telecommunications



Technical specifications

Features

Databases	Satellite database Station database Authorized carrier data-base (reference) Unauthorized carrier data-base
Data display	Graphic User Interface Map integrated Spectrum viewer Google Earth compatibility
Multitasking	

Interference Detection

- Blind signal analysis
- Automatic carrier detection
- Carrier under carrier detection (QoS)
- Adaptative signal cancellation

Geolocation Reporting

- | | |
|-----------------|-----------------------------------------------|
| Data reporting | report in RTF format |
| Data management | automatic set-up,
recording into databases |

CGL

Compact GeoLocation

SOFTWARE FEATURES

GUI

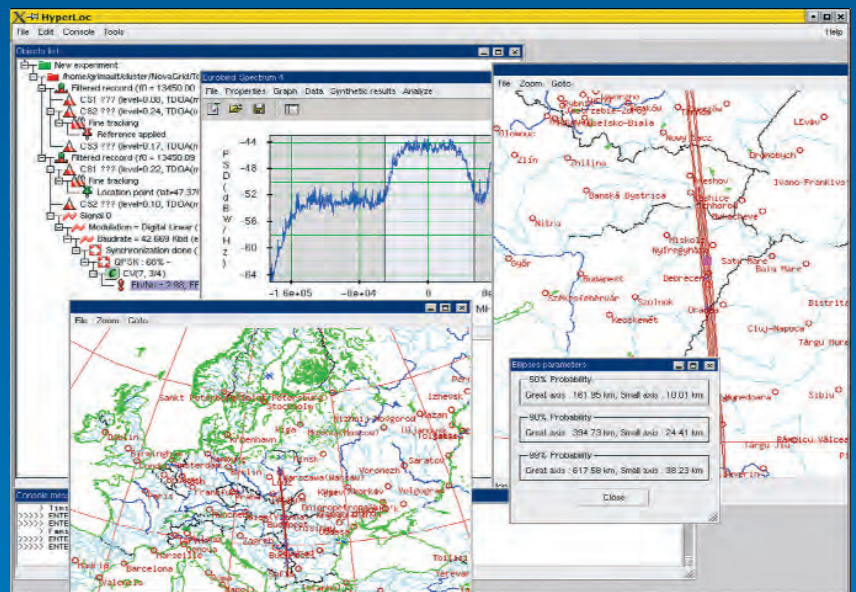
Context sensitive pop-up menus

Multi windows :

- ▶ Spectrum analyzer
- ▶ Map, ...

One click from start to results

- ▶ Run, process
- ▶ Analysis, display ...



Configuration

Software licenses :

- ▶ GeoLocation
- ▶ Advanced GeoLocation (Signal Analysis, carrier under carrier)

XML-RPC interface

- ▶ CSI configurations
- ▶ SDSP operations

HARDWARE FEATURES

Refer to the IF over IP data sheet

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