

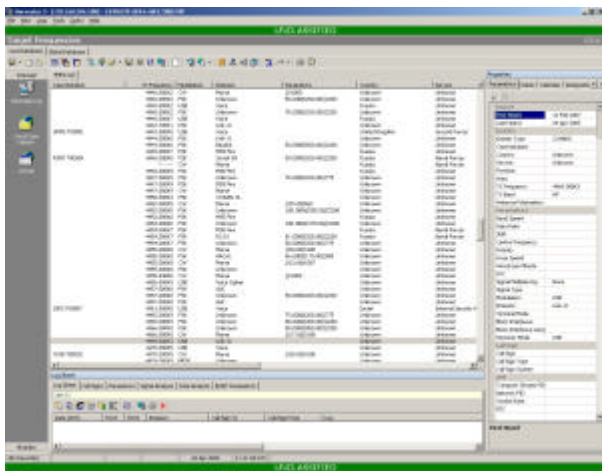
# HARVESTER VERSION 3

*Professional and Amateur SIGINT Solutions*

**signals intelligence (SIGINT): 1.** A category of intelligence comprising, either individually or in combination, all communications intelligence, electronics intelligence, and foreign instrumentation signals intelligence, however transmitted. [JP 1-02] **2.** Intelligence derived from communications, electronics, and foreign instrumentation signals. [JP 1-02]

## Overview

In today's rapidly changing world where major events can impact on all our lives, we all need to keep one-step ahead of the news. HARVESTER 3 gives you that edge. The culmination of almost 3 years of development in consultation with both professional and amateur collectors, HARVESTER 3 builds on the huge successes of previous versions and delivers to users with a vast array of signals intelligence gathering tools.



The HARVESTER 3 family of SIGINT database applications continues provide unique, powerful and cost-effective solutions to a wide range of collection requirements. Now fully network enabled, even the simplest collection mission can function in a multi-user collection environment, focussing the collection effort into a single database. Integrated with a stable database architecture, HARVESTER 3 is a Signals Intelligence collection tool that will easily handle the vast quantities of intelligence that can be gleaned from any COMINT, ELINT or FISINT signal intercepted between 0 Hz to 100 GHz.

With a strong focus on the storing of collection of raw SIGINT, intelligence can be easily retrieved

and analysed to recover such useful information as operating procedures and schedules, frequency plans, variations in system specifications, operator characteristics, call sign systems, trends in traffic and message texts, platform movements, transmitter locations and much more. Using Local Case Files and TEXTA functionality, procedures, trends and observations can be annotated and rapidly accessed to provide a unique assessment of intercepted signals.

HARVESTER 3 comes with two individual databases, a Local database, which the user can use to store and maintain local-interest intercepts, and a Global database, a centrally maintained repository of processed intelligence to which users can add their own logs to support analysis.

## Log over 60 parameters for every frequency

At the heart of HARVESTER 3 is the Target Frequencies screen. Here, frequencies can be added or edited and search results can be displayed. To aid signal identification, HARVESTER 3 stores over 60 individual frequency details, including over 30 different technical parameters, or parametric values, for every single frequency entered giving you the ability to simply and quickly identify and classify a signal. Common parameters such as shift, data rate, drum speed, IOC, words per minute and polarity can be entered as can the characteristics of more complex systems, such as alphabet, antenna polarisation, autocorrelation frequency, bandwidth, baud rate, bit inversion, broadcast style, centre frequency, character length, character repetition cycle, cryptographic preamble, cryptographic system, CTCSS tone, emission designation, FEC, frame length, interleave, interleave length, multiplex, MFSK tones, MFSK tone spacing, parity, pilot frequency, pulse rate, pulse width, start bits, stop bits and symbol rate. Not only does HARVESTER 3 handle common

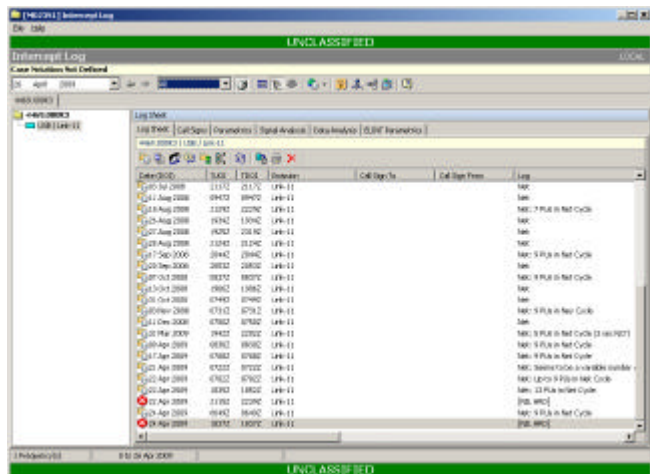
single channel voice and data signals, but also composite multi-channel signals such as FDM, TDM and DVB, which are mapped in frequency, time and digital domains respectively.

### Analyse historical logs and spot trends

The real power behind HARVESTER 3 lies in its ability to store both current and historical SIGINT, making it an invaluable research tool for extracting and analysing intelligence trends. Intercepts can be entered and viewed on the Target Frequencies screen or the Intercept Log, where intelligence as diverse as active call signs, LOB logs, intercept logs and message logs can be stored against each emission. All intelligence is date and time stamped to aid later analysis.

### Do SIGINT like the Pros do it

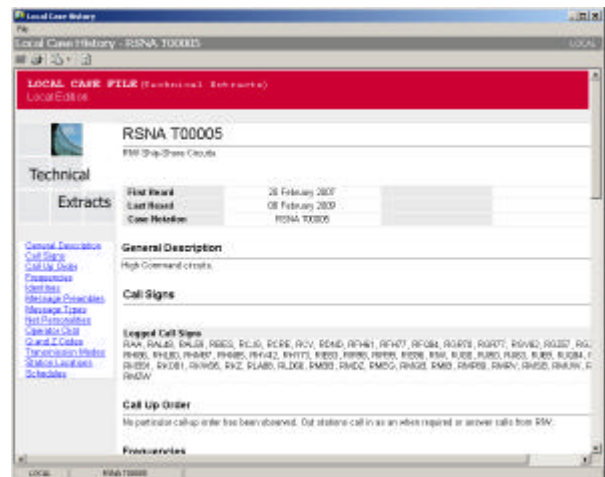
The key to consolidating gathered intelligence and processing it into valuable SIGINT product largely depends on attributing intercepted signals to the correct organisation. HARVESTER 3 accomplishes this through the extensive use of a UKUSA-style Case Notation system and by a country-by-country hierarchy of organizations to which echelons, elements and personalities can be attached with associated addresses, schedules, call signs, other identifiers such as ALE and Routing Indicators, ICAO and IATA airfield and airline codes, WMO Observing Station numbers, SELCAL codes and channel plans. A directory of contacts and platform movements can also be attached to organisation.



### Create reports with reporting tools

The HARVESTER 3 database has been specifically designed with reporting in mind. After all, gathered intelligence is useless unless it can be reported on, queried and processed. The database can be queried by simple database SQL

queries tool to recover and produce the desired intelligence, or SIGINT Product. Even simple queries such as when and where a particular call sign has been used can be provided along with the date, day and time of day, the frequency, who intercepted it and in what part of the world it was intercepted, the signal quality, a LOB bearing if available, who the call sign worked and what traffic was exchanged.



### Harvester SIGINT Data Loader

The Harvester SIGINT Data Loader provides HARVESTER 3 users with the ability to import frequency, data and intelligence product as well as system updates downloaded from our website. These update the HARVESTER 3 Global database with historic as well as current intercepts and SIGINT product from around the world. Please contact us for details of this feature.

### Key Features

- Stores all intercepted single and multi-channel frequencies from 0 Hz to 100 GHz
- Handles both single and multiplex channels (FDM, TDM, DAB and DVB)
- Handles Trunked Networks and Talkgroups
- Capable of handling full SIGINT family of signals (COMINT, ELINT and FISINT)
- Stores over 60 details for every signal logged including over 30 parametric values
- Stores current as well as historic SIGINT making trend analysis possible



### **Tailoring the User Environment**

While HARVESTER 3 will more than meet the needs of most customers, we recognise that some users may require additional specialised functionality to meet specific mission requirements. Please contact us for details of system enhancements or bespoke development tailored to your exact requirements.

### **Minimum System Requirements**

HARVESTER Version 3 requires approximately 35 MB of hard disk space to install. In addition to this, Microsoft SQL Server 2005 will require between 200 MB and 1.2GB of disk space (depending on the version installed). Additionally, we recommend at least an initial 5 GB of free disk space to accommodate natural database growth and the storing of intercept associated files.

Both Professional and Standard Editions can be configured as either a standalone database or as a network-enabled database. In the former configuration, both server and client requirements will apply to the same machine, while the latter configuration will require a separate server and at least one client PC.

### **Standalone Option**

This configuration will suit most users and radio enthusiasts and makes use of the benefits of Microsoft SQL Server 2005 architecture to provide a fast and robust database. Microsoft SQL Server 2005 Express Edition is especially used to this version, avoiding both system and processor overheads while gaining all the benefits of a professional database. This option can easily be converted into the fully networked option with the addition of one or more clients on other PCs on your LAN.

**Server/Client:** Microsoft Windows 2000, XP or Vista  
Microsoft SQL Server 2005 Express Edition  
Microsoft SQL Native Client  
Disk Space 300 MB

### **Networked Option**

The networked option will suit more advanced and professional users who require collection to be simultaneously performed by a number of collectors at different intercept positions. Again making full use of Microsoft SQL Server 2005 architecture to provide a robust collection and storage platform, it is recommended that network configuration installations use the full Microsoft SQL Server 2005 version to avoid tablespace and connection limitations imposed in the Express edition. There are an unlimited number of users though each client connecting to the database over your a TCP/IP LAN will require a separate software licence.

**Server:** Microsoft Windows 2000 Server (SP4), Windows XP or Windows 2003 Server  
Microsoft SQL Server 2005 Express Edition  
Disk Space 300-1200 MB

**Client:** Microsoft Windows 2000 (SP4)  
Windows XP or Microsoft Vista  
Microsoft SQL Native Client  
Disk Space 49 MB

### **Further Information**

For further information on HARVESTER 3, please visit our website at [www.sigint.co.uk](http://www.sigint.co.uk), or e-mail us at [sales@sigint.co.uk](mailto:sales@sigint.co.uk).