



C-Scope Logging and Replay

The C-Scope Logging and Replay is designed as a collection of general-purpose recording and replay software modules. Both the logging software and the replay server software operates indiscriminately on the different data types and protocols used. This means that the basic modules in the C-Scope Logging and Replay simply taps the system of data and on request feeds it back to the system, exactly as it appeared when it was present in real time. A major advantage is that the regular Client software used to present VTS data to the VTS operator is also used to present replayed data, thus providing the same functionality as when operating on real-time data. This also means that no dedicated replay client software is necessary, except for the Replay Control Panel.

Introduction

The C-Scope Logging and Replay is adaptable to a large variety of requirements, from small 8 channels single systems to large dual systems that can record several hundred channels from various sources like:

- ⊕ Audio
- ⊕ Radar Video
- ⊕ Radar Tracks
- ⊕ CCTV
- ⊕ AIS
- ⊕ VHF/DF
- ⊕ Generic LAN channels

The Recorder timestamps all data with the internal computer clock and can be externally synchronised with the Time Service Module.

The various data sources are recorded and can be replayed homogeneously, or in the same fashion. Data can also be forwarded to various pieces of equipment for a seamless integration for the customer.

The computer hardware can be specified with different options to suit all of the customer's requirements.

Features

➤ Replay

- ⊕ Visual display of all sources both real-time (monitor) and history
- ⊕ 16 audio channels and all non-audio channels can be replayed simultaneously
- ⊕ Audio channels can be directed to 4 different speakers (front-L, front-R, rear-L or rear-R)
- ⊕ Textual bookmarks for later retrieval
- ⊕ Start, stop, pause, fast forward, fast backward, variable speed
- ⊕ Instant replay via simple point and click in monitor
- ⊕ Monitors all channels
- ⊕ Replay from Log, CD, Impound or Quarantine location

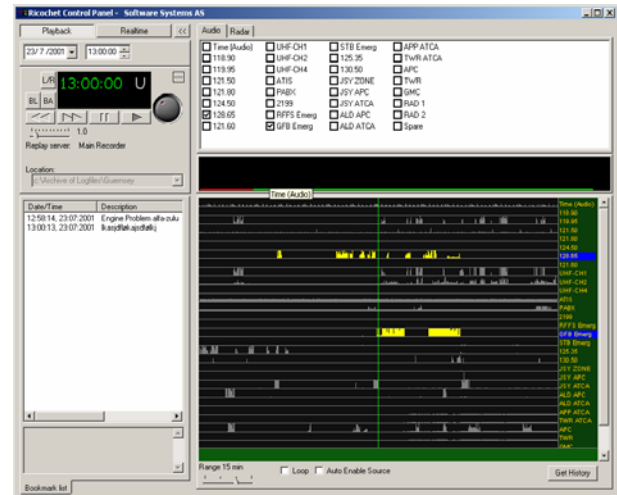
The C-Scope replay application can be installed on any connected computer running Microsoft Windows 2000® or XP®, and is using the same presentation concept as the C-Scope Operator Display, however adding the Replay Control Panel.

Through the C-Scope replay application, tracked targets, digital radar video, voice communications, VHF/DF and CCTV images may be replayed in a synchronous mode.

Replay Control Panel

The Replay Control Panel, with its unique activity view where the user gets a visual representation of the recorded data, enables the user to access the information extremely fast for replay.

To search for voice or any other data is virtually instant (1-2 seconds), with zero degradation of this information over time.



➤ Recording

- ⊕ Audio data stored online for at least 31 days
- ⊕ Redundant Array of Independent Disks (RAID 1 or 5)
- ⊕ Automatic cleanup

➤ Archive

- ⊕ Scheduled archiving to CD/DVD
- ⊕ Replay directly from CD/DVD

➤ Time Synchronisation

- ⊕ Supported external sources/protocols are NTP and GPS-NMEA
- ⊕ Custom protocols are easily implemented

➤ Alarms

- ⊕ Alarm management software
- ⊕ Interface for external alarm connections
- ⊕ Integrates to the Kongsberg Norcontrol IT Health Monitoring System

➤ **Diagnostics**

- ⊕ *Software oscilloscope*
- ⊕ *Audio monitor*

➤ **Redundancy**

The Log Server software stores data on a storage medium with a capacity sized after the volume of data and the time-span of the accessibility of the logged data. This can range from a single internal HDD to RAID systems in the terra-byte (1024Gb) size. The RAID array will normally be configured such that it will tolerate failure of one disk without loss of data.

In a standard redundancy configuration the digitising, filtering and logging software run in parallel on two PCs.

Interfaces

➤ **Audio Interfaces**

- ⊕ *Unlimited number of input channels. 8-128 channels pr unit.*
- ⊕ *Analogue, ISDN, E1, T1, PCM30, Digital Extensions (Ericsson, Nortel, Meridian, Siemens, NEC, Lucent).*
- ⊕ *G.711 sampling, selectable compression, AGC.*
- ⊕ *Output connection interface: Multimedia Soundcard with 4 individual outputs.*

➤ **CCTV Interfaces**

- ⊕ *Video input as Composite, S-Video, RS-170. NTSC and PAL.*
- ⊕ *Adjustable compression and fps. Recording by motion detection.*

➤ **Screen Image Grabbing**

- ⊕ *Dual DVI/DVI/RGB interface 640x480 to 2048x2048, 256 to True Colour. Adjustable compression and fps.*

Options

- ⊕ *Time Service, incl. GARMIN GPS receiver*
- ⊕ *Krone Connector, LSA Pluss*
- ⊕ *Serial, CCTV, RGB Screen capture recording*
- ⊕ *Tape backup*
- ⊕ *Dual power supply*

➤ **CD Maker – Impound of voice data**

Incident management has never been easier or quicker. Kongsberg Norcontrol IT offers a tool dedicated to creating secure CD's of impounded data. Sometimes incidents happen and it is important to secure the data and distribute it to the appropriate persons in a secure manner. The Impound CD Maker software makes this simple.

➤ **Line Unit 19" rack mount**

RLU is an interface module for analogue input signals. The purpose of the module is to adapt and isolate the line input signals before connecting to the digitiser board. DC and Ring Voltage are removed and the input signals are isolated from the DA converter by use of transformers.



C-Scope Logging and Replay is powered by Ricochet by Software Systems

