

Non-Intrusive Record, Analysis, and Playback T1 E1 Calls

Analyze ISDN, SS7, Voice, Fax, Modem, & Tones

Analyze DTMF, MF, or MFC-R2 Digits

Analyze Signaling Protocols

View Calls in Time, Spectral, or Spectrogram Modes

Analyze Voice Quality, Modem/Fax Calls

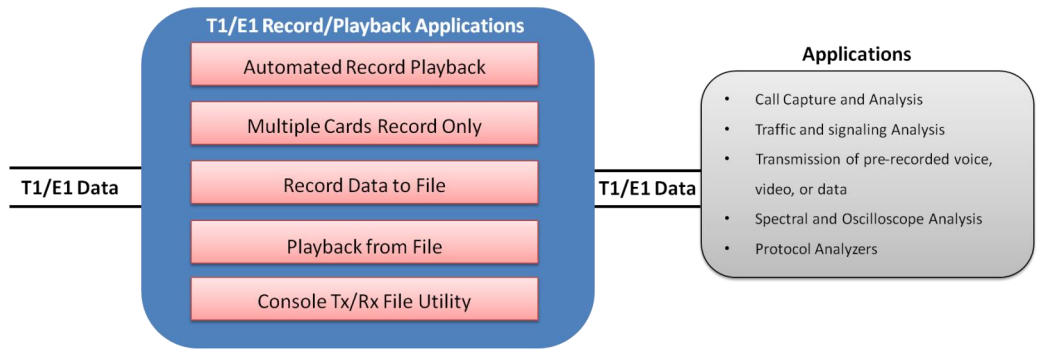
Capture Any Traffic of Specified Power Level

ISDN Triggering with Filtering options

Automatic & Manual Termination of Recording

Logs Call Summary, Facility Alarms, & Supervisory Signals (*.csv or binary)

T1 E1 Transmit and Capture Applications



Overview

Record and Playback application permits the user to transmit and/or capture any signal on T1 E1 lines with GL's T1 E1 PCI cards or USB T1 E1 units. Typical applications include transmission or capture of prerecorded video files, traffic loading applications and protocol analysis. Files of any length can be transmitted continuously (without loss) on the selected single/multiple timeslots. Continuous transmission of a single file is also possible. Automated Record/Playback (ARP) is similar to the 'Playback File' and a 'Record Data to File' application, that makes it very easy for the users to run several transmit or receive operation tasks simultaneously. Automated Continuous Capture (ACC) is another similar application, which allows the user to capture data from a card as seamless chunks into several files of the specified size instead of one big block.

The Record and Playback application also includes [Multiplexing / Demultiplexing Software \(STE040\)](#) to multiplex individual files on different timeslots into one aggregate output file and vice versa. For more information on Record and Playback application, refer to <http://www.gl.com/t1e1-data-transmit-receive.html>.

Main Features

- Features available for Transmit Applications (Playback from File, ARP)
 - Full or Fractional bandwidth
 - Preparation of stimulus signals for test purposes
 - Traffic loading of switches/transmission equipment
 - Unique testing of signaling systems
 - Transmission of pre-recorded voice, video, or data
 - Testing of video compression equipment
 - Byte reversal, Invert Bit and Sync playback features
 - Broadcast File option to transmit same data on selected timeslots
- Features available for Receive Applications (Record Data to File/Multiple Cards, ARP, ACC):
 - Capture of anomalous events for Post Analysis
 - Analysis of voice band protocols, and protocol verification
 - 'Limited Capture' feature specifies the number of bytes to be captured
 - Recording and test of voice response systems
 - Simultaneous capture of data on one or more devices on selected timeslots
 - Simultaneous execution of transmission and reception in ARP
 - Capture options such as capture based on size and capture based on times can be set in ACC



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Playback from File

The transmit file application permits transmission of a file on the selected timeslots. The capability is supported in both D4 (193S) and ESF (193E) framing formats for T1 and CAS and CCS modes in E1. This application allows Byte reversal, Invert Bit, Continuous file transmission, Broadcast File transmissions. Over-write TS-0 (For E1 system only). For E1 systems, if timeslots 1 to 31 are selected for transmission, timeslot 0 is omitted and timeslot 16 is overwritten in CAS mode but not in CCS mode.

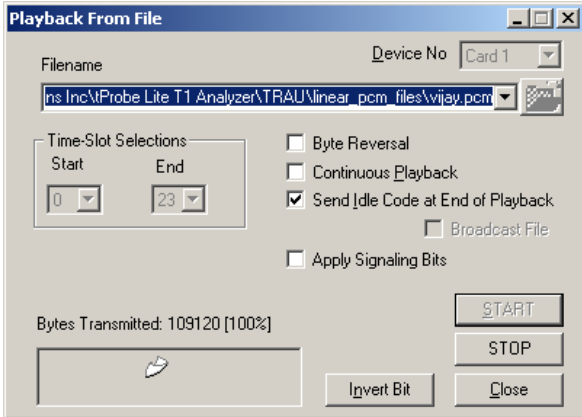


Figure: Playback from File

Record Data to File

The capture application permits capture of data directly from T1 or E1 timeslots to a file. Main features available are:

Capture to a file from all or selectable contiguous timeslots ('Byte Reversal' option allows capture of bytes in reverse order).

Limited capture (specific number of bytes) to a file from all or selectable contiguous timeslots with the help of 'Limited Capture' option of the application.

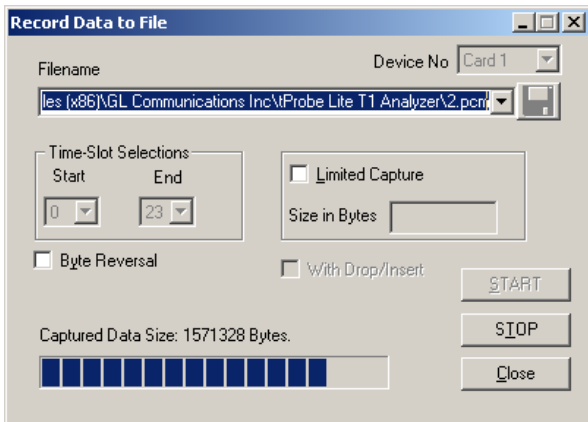


Figure: Record Data to File

Automated Continuous Capture (ACC)

This application provides the flexibility of capturing data as chunks of data in files of the same size instead of one big file. It includes two types of continuous capture options - capture based on file size and capture based on time.

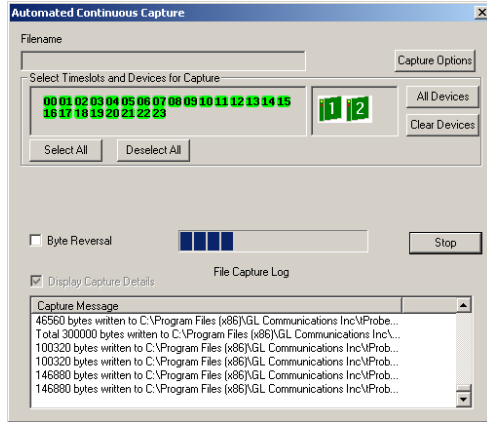


Figure: Automated Continuous Capture

Record from Multiple Cards

The application permits capture of data directly from T1 or E1 timeslots to a file on one or more devices simultaneously.

Main features available are:

- Options for selecting/deselecting all the cards and time slots when necessary.
- Capture of data on non-contiguous T1 E1 timeslots. Bytes may be captured in reverse order or normal order.
- Limited capture (specific number of bytes) to files from all or selected timeslots for the selected devices.
- Bytes can be captured in reverse order or normal order.

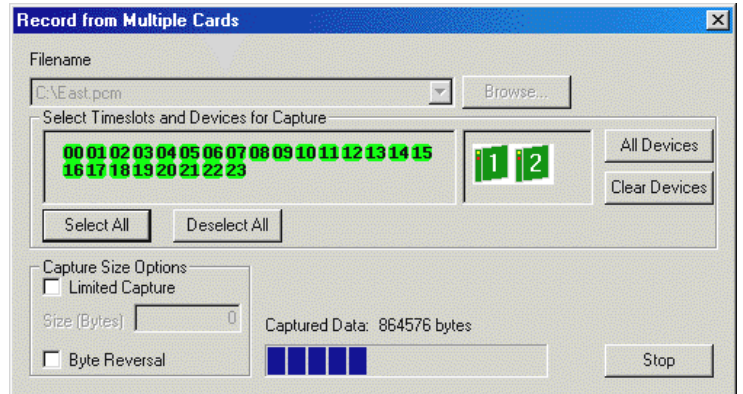


Figure: Record from Multiple Cards



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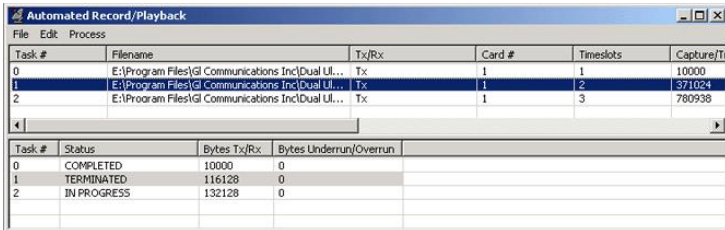
Automated Record/Playback (ARP)

This application is an extremely versatile application that runs several transmit or receive operation tasks simultaneously. The ARP application further supports sub-channel and multiple sub-channel streams for transmission and reception.

Load CTL option allows the ARP to be compatible with the earlier console-based Transmit/Receive File Utility application. The *.ctl files of Transmit/Receive File Utility can be opened in ARP for Transmission/Reception using the Load CTL Data. The opened files can be viewed in the task viewer.

Example of a CTL file:

```
NOINIT SYNC // adf
wait 500
rx1 0-0 Rxout.ula 12800
rx2 0-0 Sxout.ula 12800
tx2 0-0 Rin.ula 12800 // Limited tx
tx1 0-0 Sin.ula 12800 // Limited tx
```



Task #	Filename	Tx/Rx	Card #	Timeslots	Capture/Ti
0	E:\Program Files\GL Communications Inc\Dual Ul...	Tx	1	1	10000
1	E:\Program Files\GL Communications Inc\Dual Ul...	Tx	1	2	371024
2	E:\Program Files\GL Communications Inc\Dual Ul...	Tx	1	3	780938

Task #	Status	Bytes Tx/Rx	Bytes Underrun/Overrun
0	COMPLETED	10000	0
1	TERMINATED	116128	0
2	IN PROGRESS	132128	0

Figure: Automated Record/Playback

Multiplexing / Demultiplexing Software (STE040)

This software provides the capability to multiplex individual files on different timeslots into one aggregate output file and the reverse process of demultiplex one aggregate file into individual timeslot files. The program is applicable to T1 E1 multiplex systems and is a companion software for the files transmit and the files receive programs available with the T1 E1 cards.

For more details, refer to <http://www.gl.com/muxdemux.html>

Buyer's Guide

[XX020](#) - Record/Playback File Software (includes STE040 Mux / De Mux Software)

Related Software

[XX022](#) - DTMF/MF Detector & Generator Software

[XX019](#) - Transmit/Receive File Utility Software

[XX610](#) - File based Record/Playback (Client side) ClientDataTxRx (Server side)

[XX620](#) - Transmit/Detect digits

[XX634](#) - Multi-Channel HDLC Emulation and Analysis & File based High Throughput HDLC Record/Playback

[XX640](#) - File based HDLC Record/Playback

[XX650](#) - File based HDLC Record/Playback over SA-bits

[XX660](#) - File based Record/Playback over FDL

[XX031](#) - T1 / E1 Call Capture / Analysis Software

Related Hardware

[PTE001](#) - tProbe™ Dual T1 E1 Laptop Analyzer

[UTE001](#) - Dual T1 E1 Express (PCIe) Boards

[TTE001](#) - tScan16™ T1 E1 Boards

[FTE001](#) - QuadXpress T1E1 Main Board

[ETE001](#) - OctalXpress T1E1 Main Board plus Daughter Board

[UTE001](#) - Portable USB based Dual T1 E1 Laptop Analyzer

[HTE001](#) - Universal HD T1 E1 PCI Cards



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