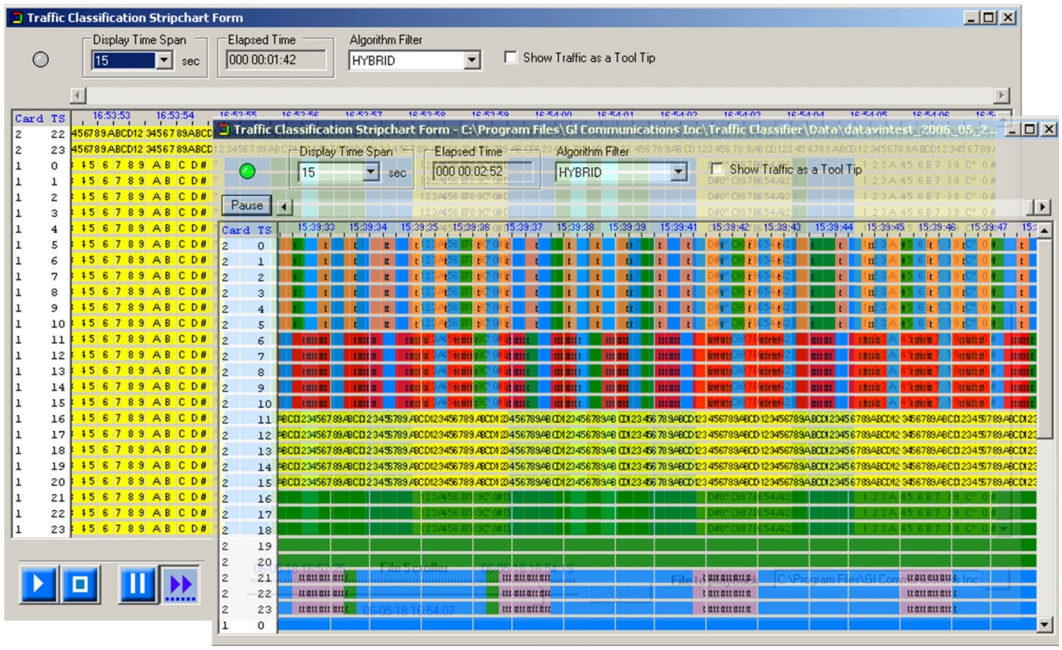
T1/E1 Traffic Classifier



Overview

Traffic Classifier is an application that can analyze the traffic on a T1 / E1 line. It can analyze and classify various traffics such as voice, fax, data, tones (dial tone, ring-back tone, busy tone etc.) as well as identify dialing digits and other events happening on a T1 / E1 network. It uses various identifying schemes depending on the country of your selection and classifies the traffic, based on the dialing tones stipulated for that country.

For more details, visit T1/E1 Traffic Classifier webpage.

Main Features

- Ability to non-intrusively monitor the traffic on a T1 / E1 line in real-time and offline modes
- Connects to a T1 / E1 line through a monitor or bridge jack
- Classifies the type of traffic on the T1 / E1 trunk
- Traffic types classified include Tones (dial, ring, busy), Voice/Speech, Data and Fax Signaling, Dialing digits (DTMF, MFR1, MFR2F, MFR2B) and others
- Data and fax modulations such as V.22, V.34, V.29, V.32, and V.27 are supported as traffic types
- Provides real-time display of the traffic types for each DS0 on the T1 / E1 trunk
- Traffic view for a particular span of time
- Result options allow the results to be either displayed on the screen, and/or save to a file
- Off-line (playback) feature can playback or fast forward previously recorded results
- Four algorithm options (Linear, quadratic, hybrid and hybrid filtered) to fine-tune the classification results
- Analyzes the T1 / E1 traffic and graphically displays the results as a strip-chart
- Records the analysis results for extended periods
- Codecs supported - m-law, a-law, and linear
- Provides easy to use point-and-click interface
- Remote analysis capability

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Types of Traffic Classified

The following are the types of traffic classified by the Traffic Classifier. Users can customize the color coding used by the Traffic Classifier when displaying the various types of traffic.

- Unknown (Silence) - Channel handling a call but no signal is detected (eg: pause in speech)
- V22FOR (V.22 Forward) - Slow modem (forward channels) – typically Point of Sale terminals like VISA- 2400 bps
- V22REV (V.22 Reverse) - Slow modem (reverse channels)- 2400 bps
- V34V90UP (V.34) - Fast modem- 33600 bps
- V29- Common fax - All speeds
- V32V17GT24 (V.32) - Fast fax and modem- >2400 bps
- V27AT48 (V.27) - Slow fax- 4800 bps
- V27AT24 (V.27) - Slowest fax – when V.29 has transmission problems, this mode is used as fall back.- 2400 bps
- Voice- Speech
- BINV90DOWN (Binary) - Native binary – ISDN Basic Rate Interface- 64000 bps
- FSK- Fax signaling – page break, end of page, end of transmission- 300 bps
- Digits- DTMF/MFR1/MFR2F/MFR2B Digits- 40 bps
- Dial Tone
- Ring back Tone
- Busy Tone
- Idle- channel is on line but not in use (digital silence)

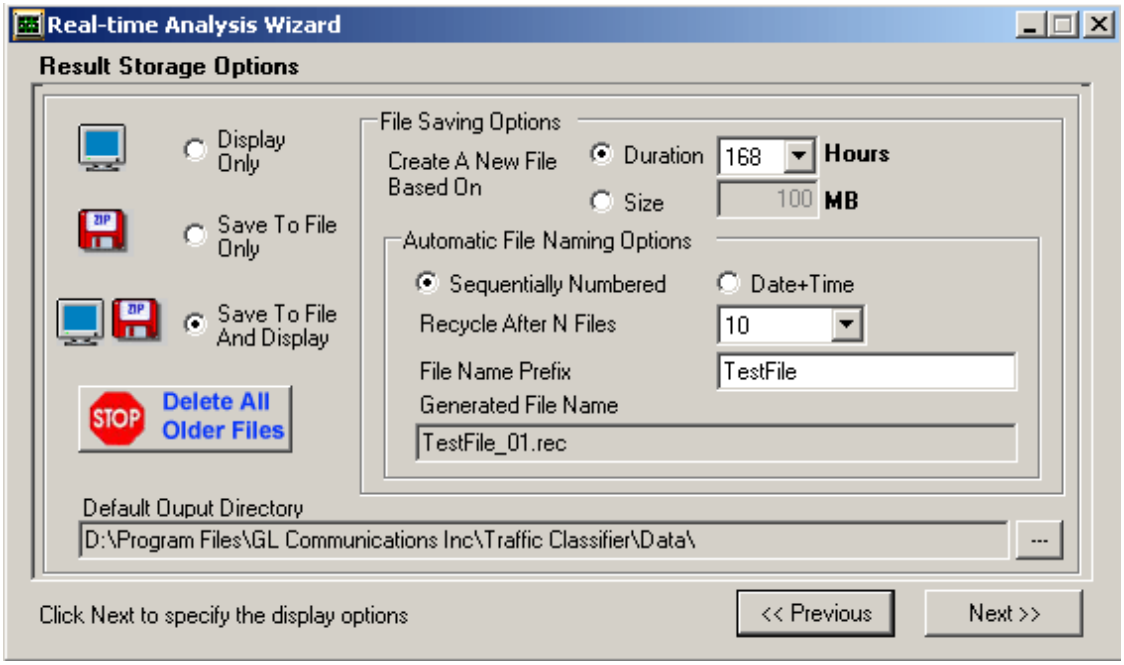
Class & Name	Signal Type(s) and applications	VBD (Voice Band Data) Standard	Max. Bit rate (bps)	Modulation type (main)	Default Color Code
Unknown (Silence)	Silence – channel handling a call but no signal is detected (eg: pause in speech)				
V22FOR (V.22 Forward)	Slow modem (forward channels) – typically Point of Sale terminals like VISA	Bell 103 & 212A, V.21, V.22, V.22bis	2400	FSK, DPSK, QAM	
V22REV (V.22 Reverse)	Slow modem (reverse channels)	Bell 103 & 212A, V.21, V.22, V.22bis	2400	FSK, DPSK, QAM	
V34V90UP (V.34)	Fast modem	V.34 & V.90 Uplink	33600	QAM	
V29	Common fax	V.29	All speeds	QAM	
V32V17GT24 (V.32)	Fast fax and modem	V.17, V.32, V.32bis	> 2400	QAM	
V27AT48 (V.27)	Slow fax	V.27ter	4800	DPSK	
V27AT24 (V.27)	Slowest fax – when V.29 has transmission problems, this mode is used as fall back.	V.27ter	2400	DPSK	
Voice	Speech				
BINV90DOWN (Binary)	Native binary – ISDN Basic Rate Interface	V.90 Downlink	64000		
FSK	Fax signaling – page break, end of page, end of transmission.	Frequency Shift Keying	300	FSK	
Digits	DTMF/MFR1/MFR2F/ MFR2B Digits		40	Digits	
Dial Tone	Dial Tone				
Ring back Tone	Ring back Tone				
Busy Tone	Busy Tone				
Idle	Idle - channel is on line but not in use (digital silence)				

Types of Traffic Classified

Result Storage Options

Result Storage options allow the results to be either displayed on the screen, and/or save the results into a file. The file can be later opened in offline mode. The application also provides the following features:

- Create a new file based on duration or size, where the user can set either the duration up to 168 hours or the size up to 1 GB
- New file names are created automatically using either Sequentially numbered or Date + Time based schemes. Also have the option to cyclically overwrite the older files and add a prefix to the file name



Real-time Analysis Wizard

Real-time and Playback (Off-line) modes

In Real-time mode, the user can capture the live traffic on a T1/E1 line and classify the information transmitted on that line. In this mode the Traffic Classifier runs in a Client-Server setup. In offline mode, user can load and display previously recorded classification results. Starting the server is not necessary in this mode. The recorded result file (***.rec** file) can be played back using the playback window. It is also possible to view the traffic for a particular span of time in the recorded file.

Buyer's Guide

Item No	Product Description
XX680	T1 / E1 Traffic Classifier

Item No	Related Software
XX610	w/ Transmit and Receive File Capability
XX020	Record and Playback of Files
XX051	Synchronous Trunk Record Playback

Item No	Related Hardware
PTE001	tProbe™ Dual T1 E1 Laptop Analyzer (Require Basic Software)
FTE001	QuadXpress T1 E1 Main Board (Quad Port)
ETE001	OctalXpress T1 E1 Daughter boards (Octal Port)
XTE001	Dual Express (PCIe) T1 E1 Boards
TTE001	tScan16™ T1 E1 Boards

Note: PCs which include GL hardware/software require Intel or AMD processors for compliance.

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