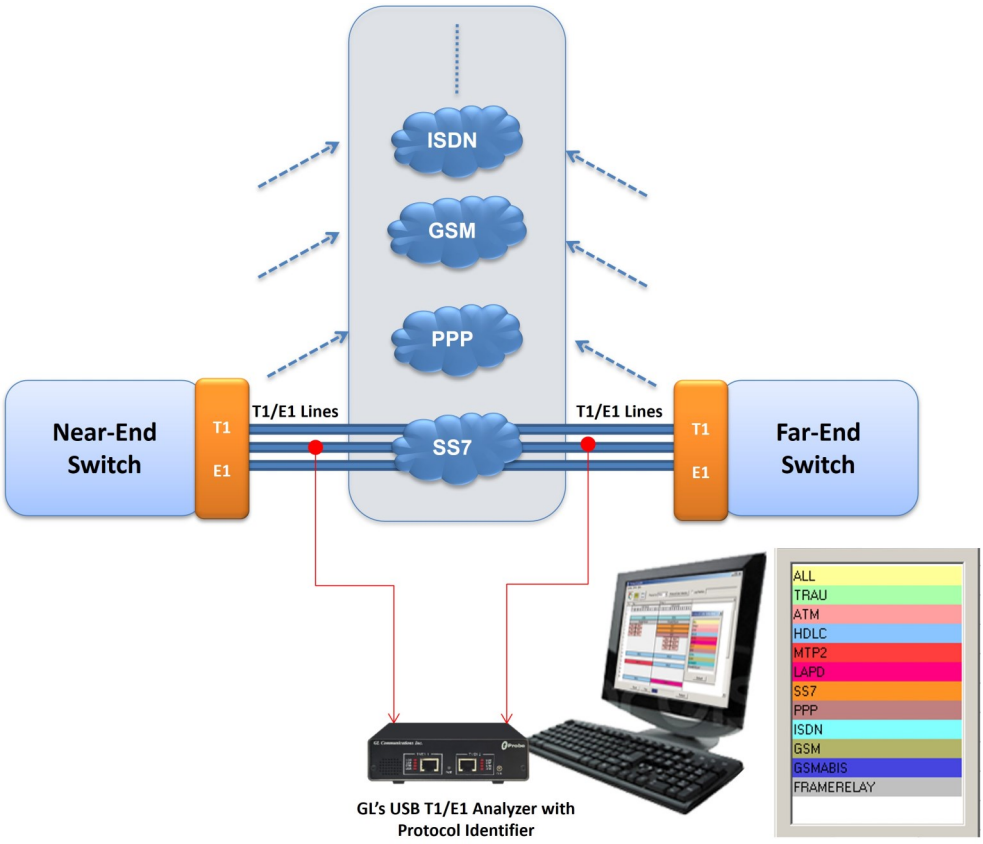
TDM Protocol Identifier



Overview

The Protocol Identifier application can identify various protocols carried on T1 or E1 lines. It is capable of detecting protocols such as ISDN, ATM, HDLC, MTP2, LAPD, SS7, PPP, GSM, GSM Abis, TRAU and Frame Relay. The timeslots and the subchannels within timeslots are also identified. Once identified, detailed analysis can be carried out by individual Protocol Analyzers. This application is helpful in identifying traffic types at a concentrated point, DSX patch panel, or multiplexed facility.

For more details, visit TDM Protocol Identifier webpage.

Main Features

- Capable of identifying and classifying signaling over T1E1 lines based on HDLC, ATM, and TRAU protocols
- Classification of HDLC based protocols such as ISDN, SS7, PPP, MTP2, Frame Relay, and GSM
- Detects protocols based on pre-defined configurations files for hyper-channels, subchannels, and data rates
- Graphical view displays the timeslots and subchannels of the identified protocols
- Statistical view displays the different protocols with the details of port, timeslots and subchannels
- Stream Statistics view shows the count of total number of timeslots, subchannels, and hyper-channels used by each protocol
- Provides an option to log the protocol detected with device and channel information into a text file
- Supports filtering to display the unique selected protocol
- Supports custom configuration of the colors to easily distinguish protocols

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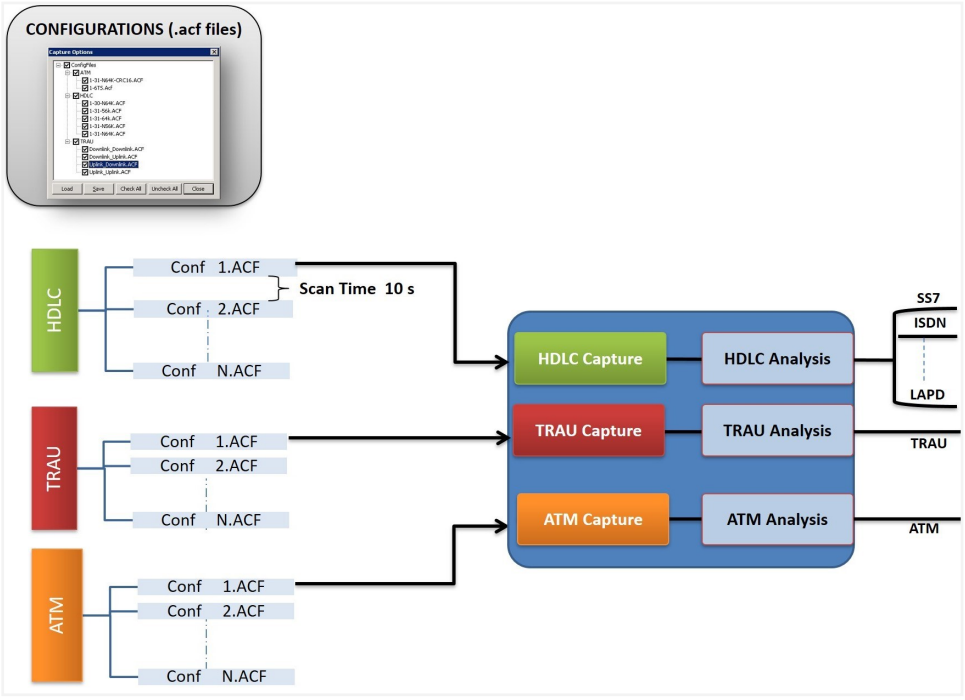
Working Principle

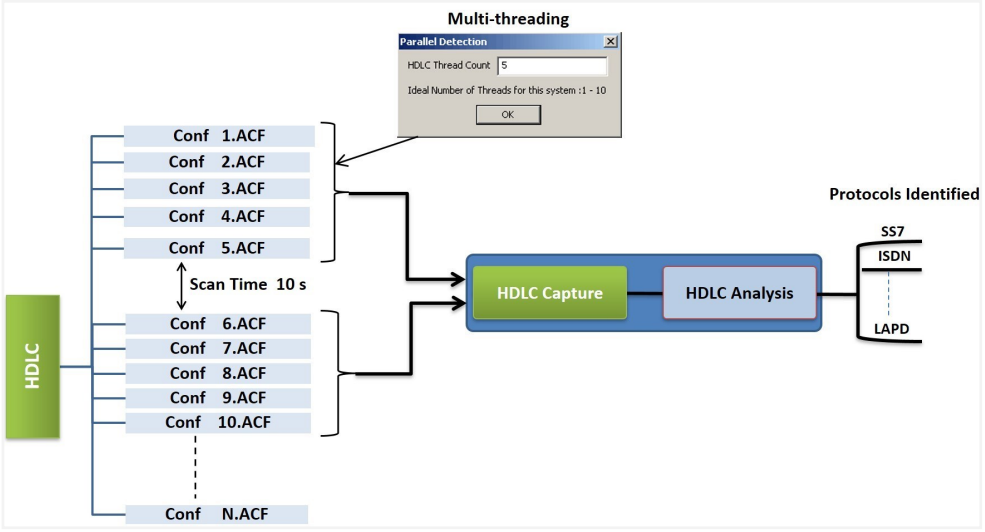
- GL's Protocol Classifier works with three basic protocol capture modules ATM, HDLC, and TRAU
- Provides ready configurations for selecting various combination of channels, such as single timeslots, full rate hyper channels, multiple hyper-channels of different data rate – 64 kbps, 56 kbps (bits 2-8), 56 kbps (bits 1-7), or sub-channels of 8k to 56k combinations
- Each capture module will process the first configuration file until the specified scan time (ex 10 sec)
- During this scan time, the captured module will forward the detected protocols to the respective protocol analysis modules
- Further the protocol analysis will decode as per the headers and classify them as SS7, ISDN, GSM, PPP, Frame relay, LAPD, ATM, TRAU and others



Working Principle

Multi-Threading for HDLC Protocol

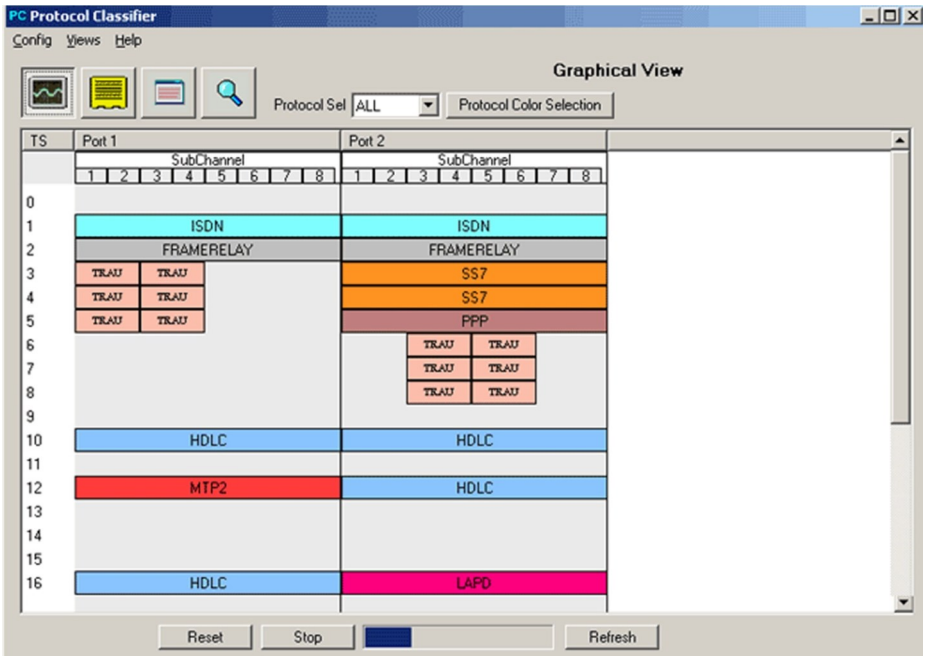
Provides multi-threading options for HDLC protocol, where in, multiple HDLC configurations are scanned simultaneously as per the thread count specified in Parallel Detection.



Multi-Threading Options

Graphical View

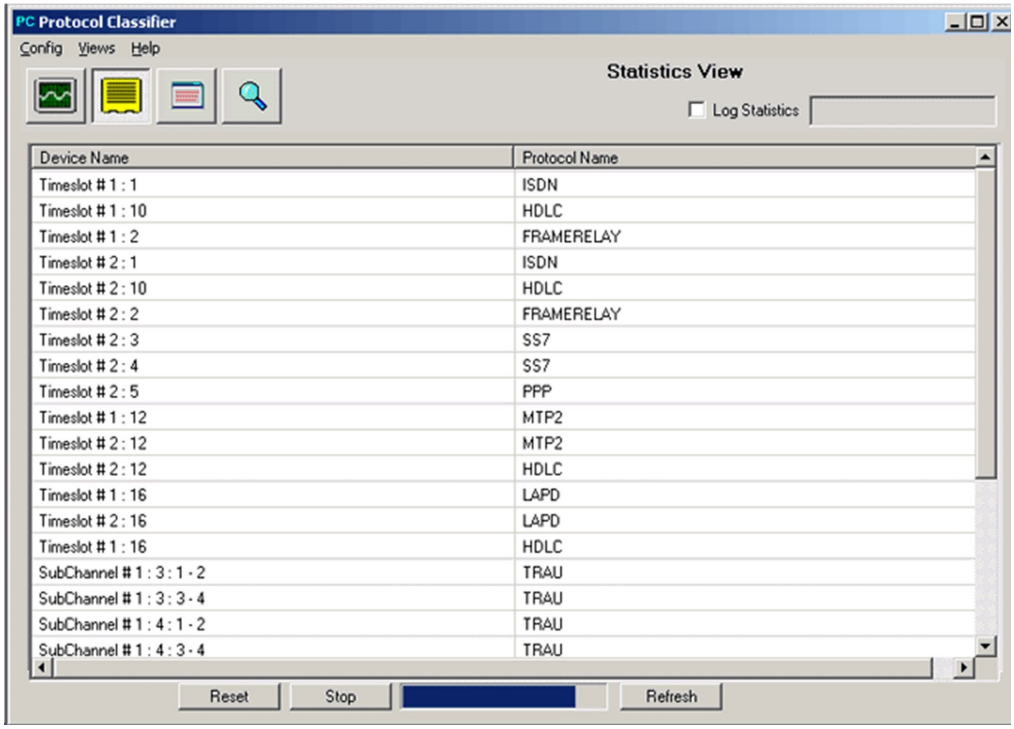
Graphical view displays the timeslots and subchannels of the identified protocols. The colors can be customized for different protocols as per user requirement.



Graphical View

Statistical View

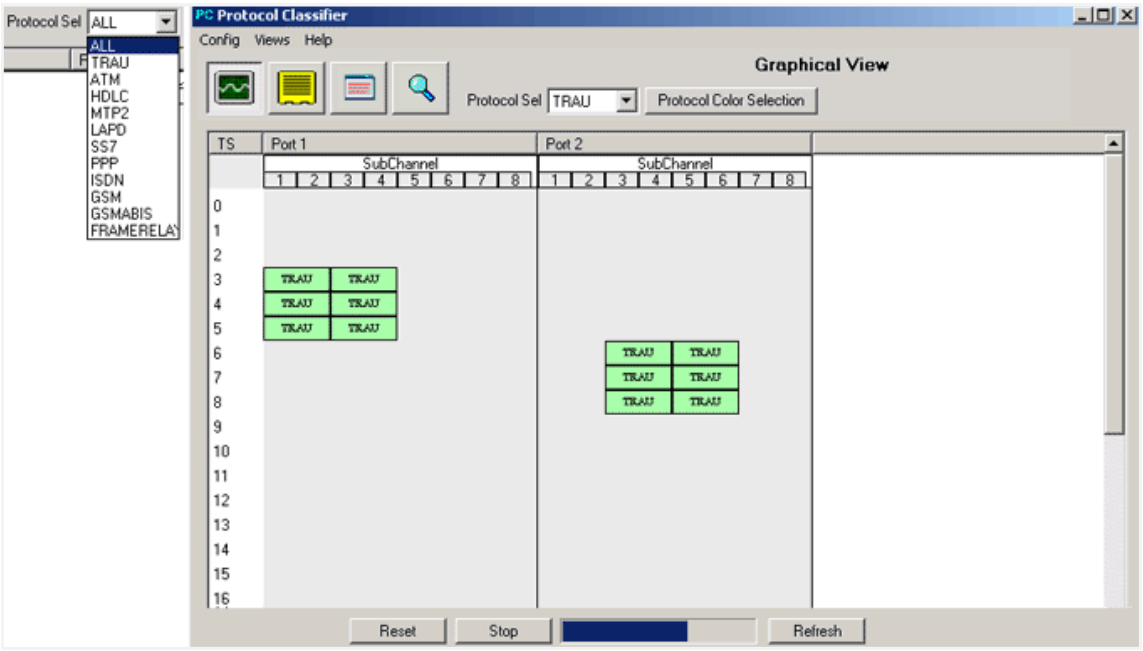
This reports the protocols identified on each timeslot and sub channels row-wise. For example, the screen below shows that the TRAU frames are identified on Port 1, timeslots 3 – sub channel 1-2 , timeslot 3 – sub channels 3-4, timeslot 4 – sub channel 1-2, and timeslot 4 – sub channel 3-4.



Statistical View

Protocol Filtering

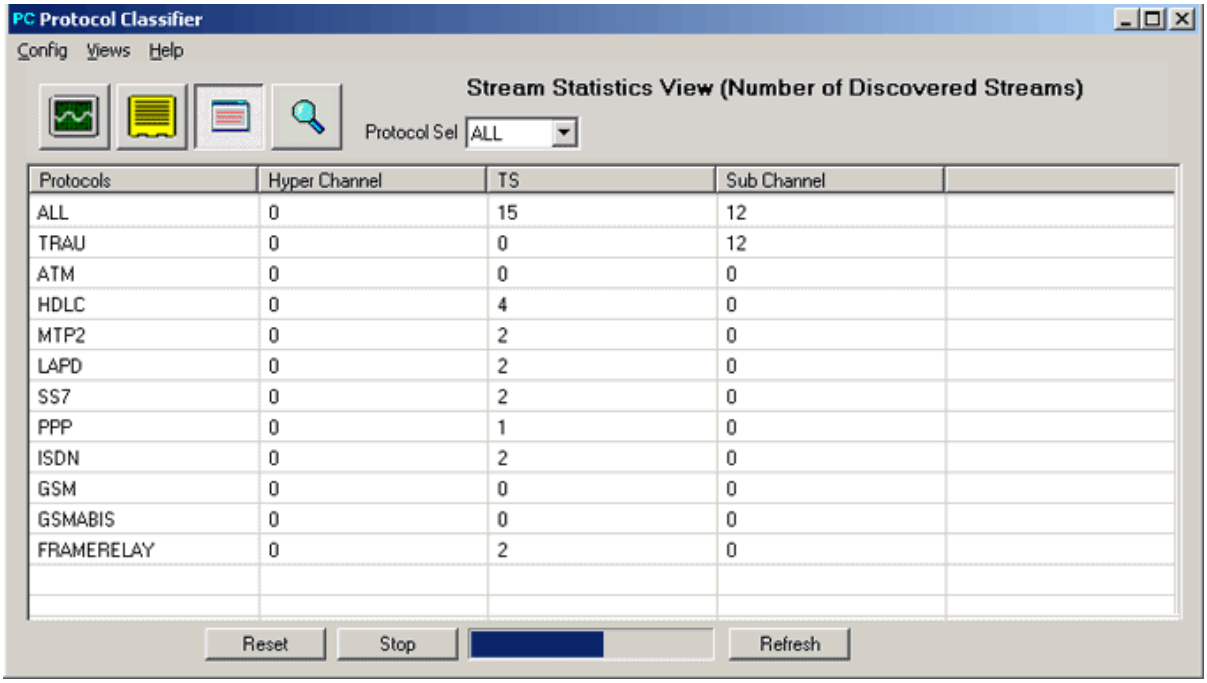
From the identified protocols, it is possible to select and filter out the protocol of interest using the **Protocol Sel** feature. For example, TRAU protocol is selected to view only its traffic flow over the streams.



Protocol Filtering

Traffic Flow View (Stream Stats View)

This displays the stream statistics such as the total count of hyper channels, timeslots, and sub channels used by individual protocols in a tabular format. It is an indication of the overall bandwidth consumption by the monitored traffic.

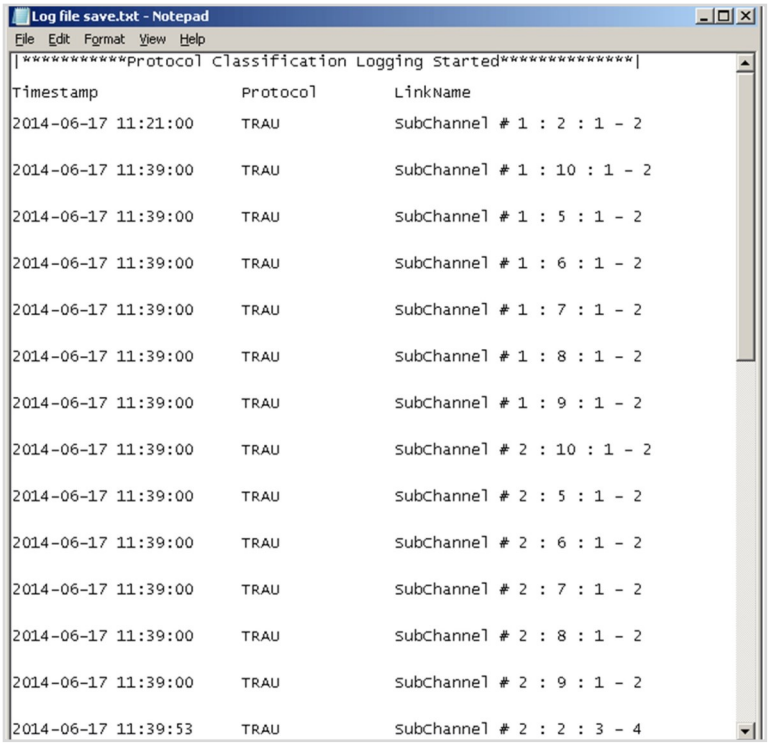


Protocols	Hyper Channel	TS	Sub Channel
ALL	0	15	12
TRAU	0	0	12
ATM	0	0	0
HDLC	0	4	0
MTP2	0	2	0
LAPD	0	2	0
SS7	0	2	0
PPP	0	1	0
ISDN	0	2	0
GSM	0	0	0
GSMABIS	0	0	0
FRAMERELAY	0	2	0

Stream Statistics View

Log Statistics

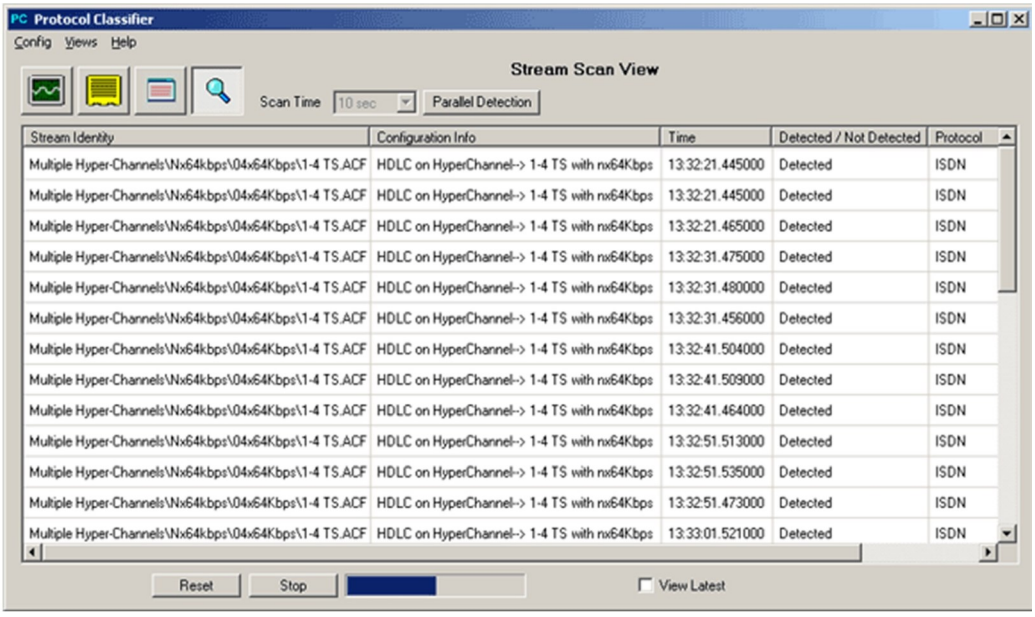
The details of the protocols identified, time, timeslots, sub-channels, hyper-channels, and device name can be logged into a text file in the desired location for further analysis.



Log File

Stream Scan View

Display Detected and Not Detected protocols while scanning as per the selected configurations for every 10sec, 20sec, 30sec, or more as specified in the Scan Time.



Stream Scan View

Buyer's Guide

Item No	Product Description
XX089	Protocol Identifier

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.

For more details, visit TDM Protocol Identifier webpage.

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