

Analysis of PPP Routed & Bridged Protocols



Supports LCP, PAP, BPDU, SNMP, DNS, DHCP, HTTP, SMTP, POP3 and more



Test and Analyze PPP in Synchronous Environment



Real-time and Offline Analysis



Testing across WAN-LAN or LAN-LAN



Summary, Detail, Statistics, and Hexdump Views



Filter and Search Capabilities



Statistics Based on Various Protocol Fields



T3/E3 PPP Analyzer



Overview

The Point-to-point protocol (PPP) is a link layer protocol, which encapsulates other network layer protocols like IP for transmission on synchronous and asynchronous communications lines. When transmitted over a T3/E3 line, PPP frames are based on the HDLC frame structure.

Today the PPP protocol standard finds wide use in synchronous connections between LANs, bridges, routers and other intermediate devices.

Two major features of PPP protocol are:

- Authentication
- Encapsulation of higher layer protocols.

GL's PPP Analyzer captures a host of PPP protocols exchanged between the two nodes over T3/E3 links and provides useful analysis, which includes distribution of protocols, protocol fields, frame lengths, and frame status. User can decode and analyze protocols and can perform various statistics measurements.

Main Features

- Supports a host of protocols: PPP, IPCP, BCP, BPDU, PAP, CHAP, HTTP, SNMP, STUN, FTP, DNS, and DHCP.
- Ability to test and perform numerous measurements across WAN- LAN or LAN-LAN connection.
- Ability to test and analyze HDLC based PPP protocol in synchronous environment.
- Search and filtering capabilities for both real-time and offline analysis.
- Provides summary, detail, statistics, and hex dump views.
- Summary view provides the information about important fields: Dev #, Layer 3 Protocol, LCP message type, and higher protocol specific information in a tabular format.
- Hex Dump View displays raw frame data as hexadecimal and ASCII octet dump of a user-selected frame from the summary view.
- Detail view displays decodes of a user-selected frame from the summary view.
- Statistics view displays statistics based on frame count, byte count, frames/sec, bytes/sec, etc., for the entire capture data.
- Capability to export summary to the comma separated values (CSV) format for subsequent import into a database or a spreadsheet.
- Capability to export detailed decode information to an ASCII file.
- Ability to capture and decode both PPP routed protocols, PPP bridged protocols.

For more details, visit our web page <http://www.gl.com/t3-e3-ppp-analysis.html>



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Analyzer Interfaces

The analyzer displays summary, detail, statistics, and hex dump views in different panes. The summary pane displays Frame Number, Time, Length, Error, PPP Layer3 Protocol, LCP Code, IPCP code, BCP code, PPP Message type, and more. User can select a frame in the summary view to decode all fields in the detail view. The hex dump view displays the frame information in HEX and ASCII formats.

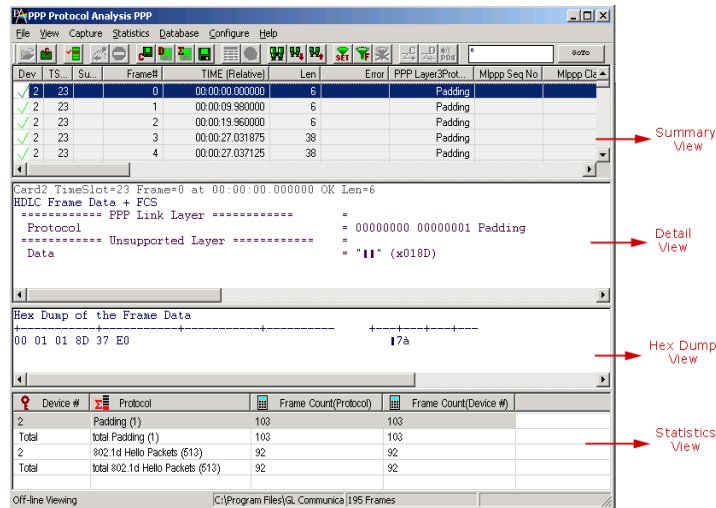


Figure: Analyzer Views

Filtering and Search

There are two types of filters: capturing filter and view filter. The capturing filter is used to limit frames captured to a trace file. The view filter applies to the trace file before it is displayed.

Filtering and search capability adds a powerful dimension to the PPP Analyzer. This feature isolates frames of interest from all frames in real-time, as well as offline. In real-time capturing, filter allows capturing of frames having specified length, offset, mask, and value. The view filter applies to the captured frames and is based on the data link and decoded protocol field values: Frame Number, Time, Length, Error, Layer3 Protocol, LCP Code, IPCP code, TCP and UDP source and destination port, PPP Message type, etc. Similarly, search capability helps user to search for a particular frame based on a specific search criteria.

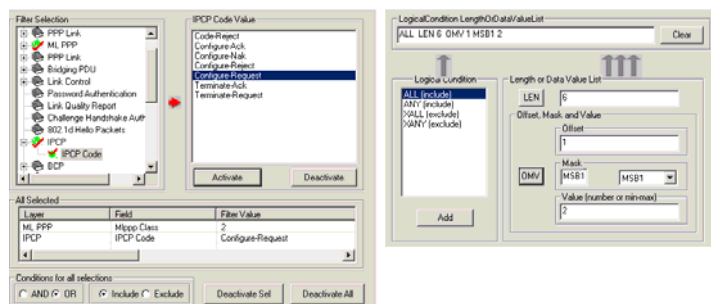


Figure: View Filter and Real-time Capture Filter

Real-time and Offline Analysis

Multiple ports can be selected in a single instance of the analyzer to capture the frames simultaneously. The recorded trace file can then be analyzed offline and exported to an ASCII file, or printed. The real-time capturing requires users to specify ports and frame check sequence (FCS) type.

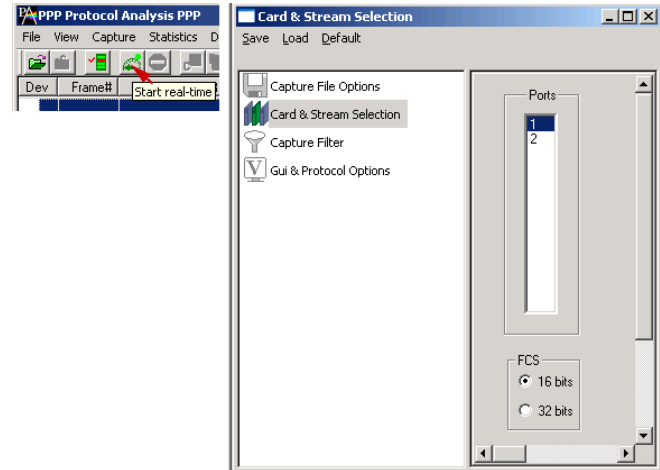


Figure: Port Selection

Statistics Display

Statistics is an important feature available in the PPP Analyzer and can be obtained for all frames both in real-time as well as in the offline mode. Numerous statistics based on protocol fields can be obtained to study the performance and trend in a PPP network.

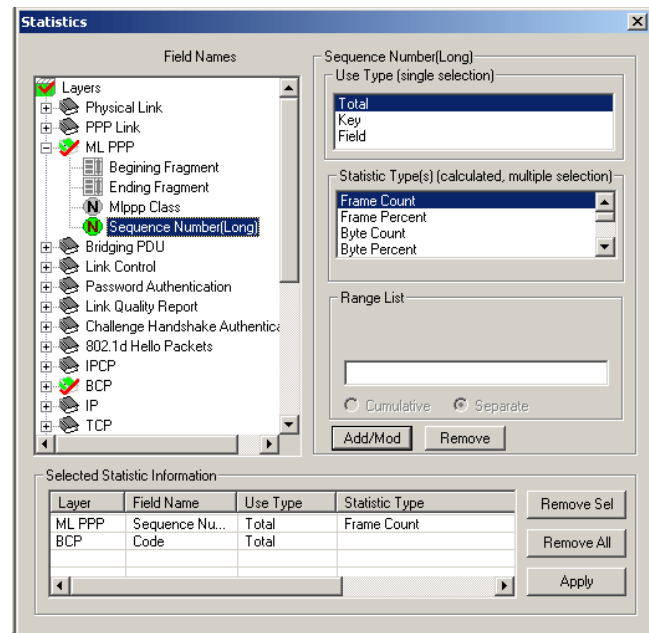


Figure: Statistics View

Buyers Guide:

[TE3001](#)– Portable (USB) Dual T3 E3 / T1 E1 Hardware Unit– requires TT3001 or EE3001

[TT3135 / EE3135](#)– T3 / E3 PPP Analyzer (GUI) Analysis and decode of PPP over T3