V5.x Protocol Analyzer

GL Communications Inc.

TDM, Wireless, and VoIP Protocol Analysis

- GL Communications provides a host of protocol analyzers for testing a variety of protocols

- Analysis may be done both in real-time and off-line
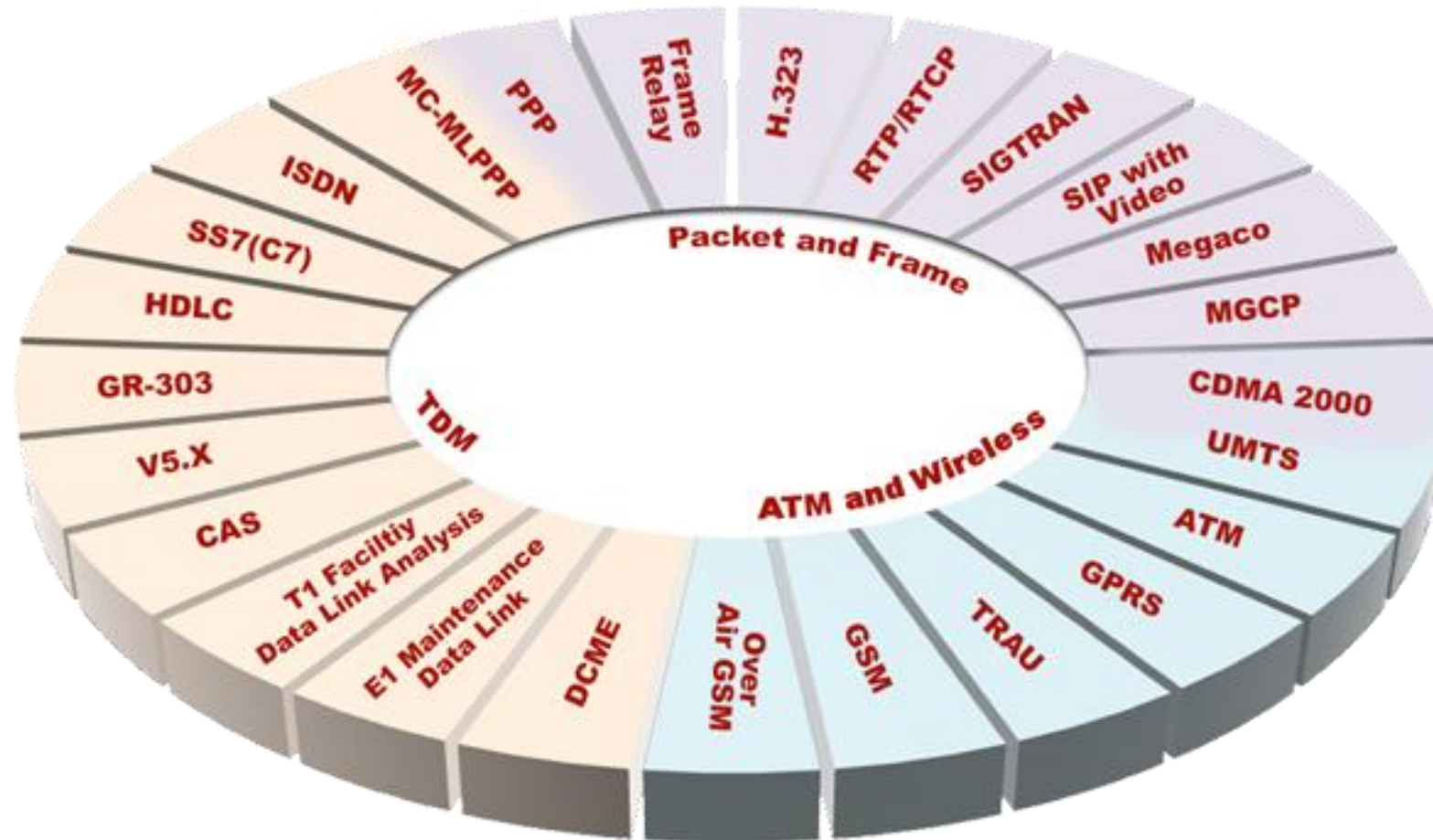
Supported Platforms

Back Panel

Front Panel

tProbe™ - Portable USB based T1 E1 VF
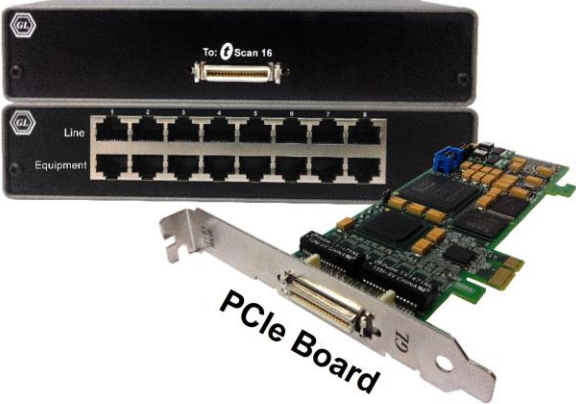FXO FXS and Serial Datacom Analyzer

Quad / Octal T1 E1 PCIe Card


Dual T1 E1 Express (PCIe) Board

tScan16™ with
16-port T1 E1 Breakout Box

PCIe Board

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Overview

- GL's V5.x analyzer can be used to capture and analyze a stream of frames from the link between LE and AN

- The analyzer provides V5.x based on ETSI / ITU standard in order to decode according to the corresponding standards

- Supports capturing and decoding of LAPV5, ISDN Call Signaling - Q.93 as layer 3, Link Control Protocol (LCP), Protection Protocol (PP), Bearer Channel Connection (BCC). and PSTN
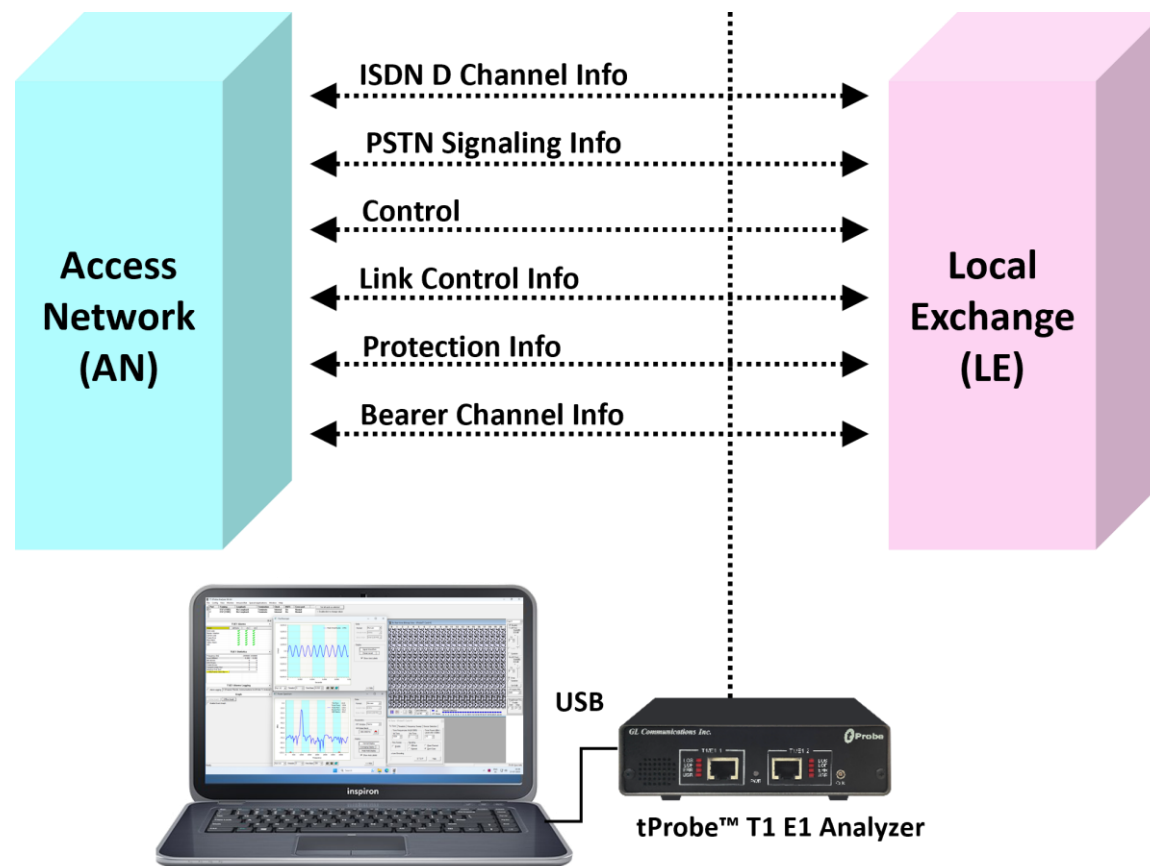
Supported Protocol Standard

- V5 ITU Standard

- V5 ETSI Standard

Supported Protocols	Specification Used
LAPV5	
PSTN	
BCC	IIU-T Q921, G.964 & G.965
PP	
Link Control	
ISDN Q.931	IIU-T Q.931

Features

- Summary View displays Device Number, Time Slots: Sub channels, Frame number, Time, Frame length, etc. in a tabular format

- Summary view (Call Quality Matrix) displays complete summary of call information in graphical format, along with a summary of alerts

- Detail View displays packet by packet statistics for call information in tabular format

- Any protocol field can be added to the summary view, filtering, and search features providing users more flexibility to monitor required protocol fields

- Option to combine data from multiple columns under one column

- Option to create multiple aggregate column groups and prioritize the groups as per the requirement to display the summary results efficiently

- Advanced filtering and search based on any user selected protocol fields

- Allows the user to create search/filter criteria automatically from the current screen selection

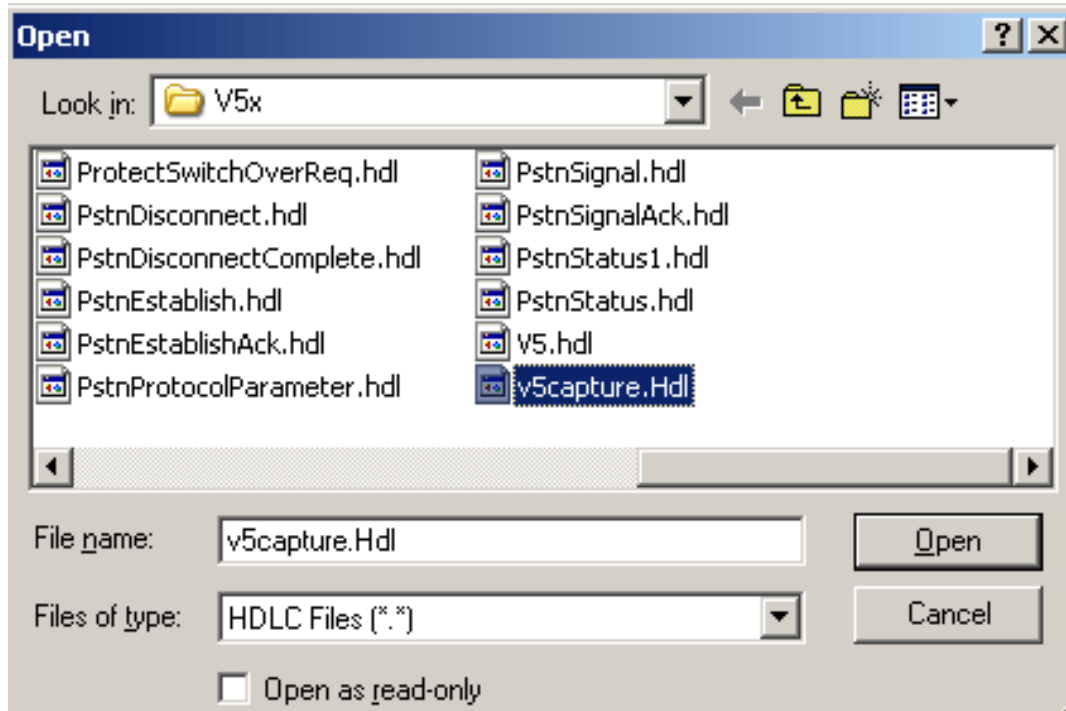- Remote monitoring capability using GL's Network Surveillance System

Real-time Analysis

Different Views

- **Summary View**: This pane displays the columns that contain Card Number, Timeslots, Frame Number, BCC Message Type Information, CTRL Message Type Information, and more in a tabular format

- **Detail View**: This pane displays in detail about a frame in order to analyze and decode by selecting it in the summary view

- **Hex Dump View**: This pane displays the frame information in HEX and ASCII format

- **Statistics View**: This pane displays various statistics that are calculated based on the protocol fields

Offline Analysis

- Off-line analysis is equivalent to capturing a file in pre-defined timeslots
- Captured frames or only the filtered frames can be exported to *.HDL file for the further off-line analysis
- Trace file for offline analysis can be loaded either through analyzer GUI or through simple command-line arguments

Filtering and Search

- Isolates required frames from all frames in real-time, as well as offline

- The frames can also be filtered after completion of capture based on C/R, SAPI, TEI, CTL, different ISDN message types and more. Similarly, search capability helps user to search for a particular frame based on specific search criteria

Filtering Criteria From Screen Selection

- Allows the user to create filter criteria automatically from the current screen selection

Search Options

- Search features helps users to search for a particular frame based on specific search criteria

Search Criteria From Screen Selection

- Allows the user to create search criteria automatically from the current screen selection

Statistics

- Statistics is an important feature available in V5.x analyzer and can be obtained for all frames both in real-time as well as offline mode
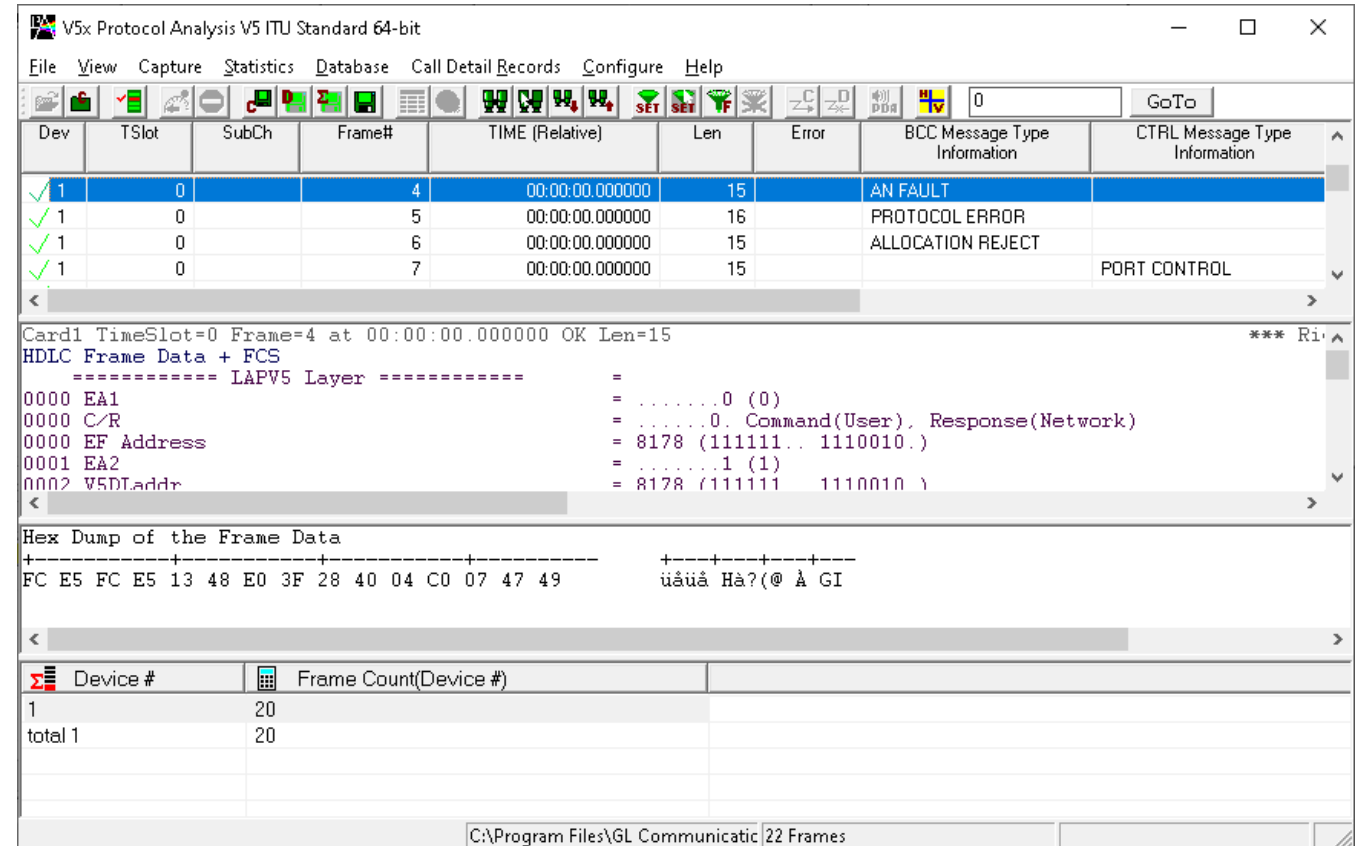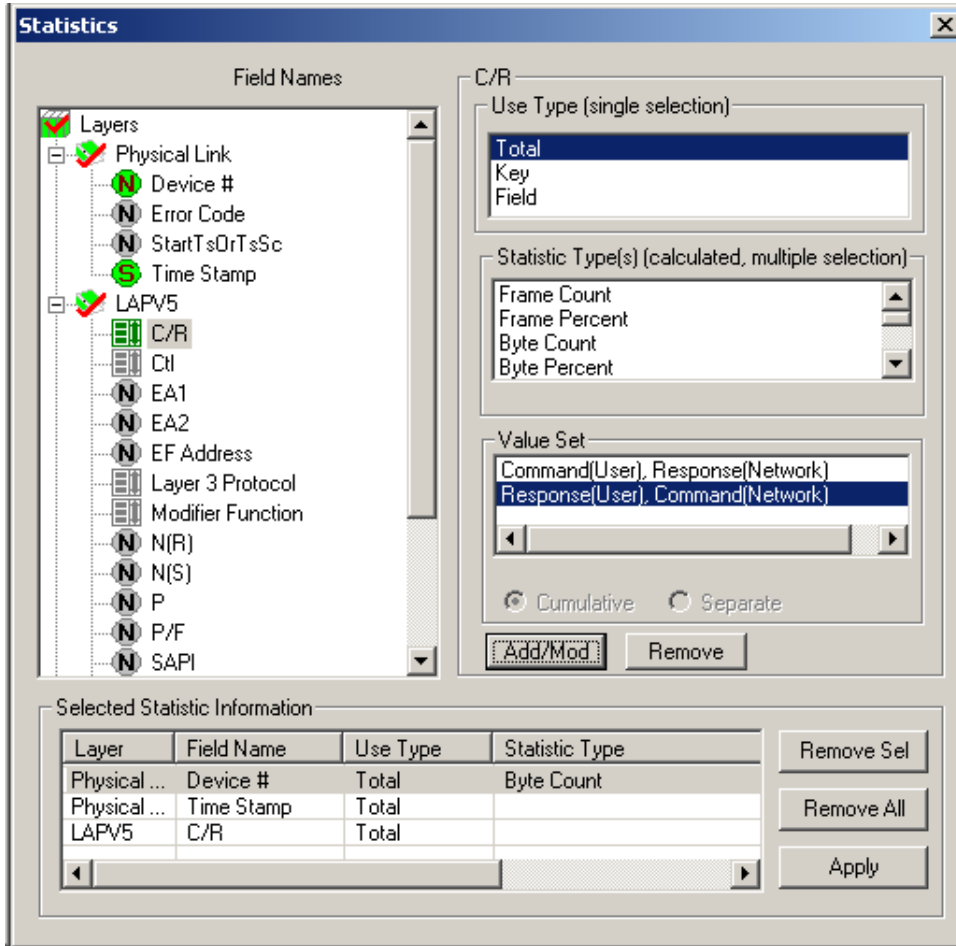
Saving a File

- Captured trace files can be controlled by saving the trace using different conventions such as –

  ➢ Trace files with user-defined prefixes

  ➢ Trace file with date-time prefixes

  ➢ Slider control to indicate the total number of files, file size, frame count, or time limit
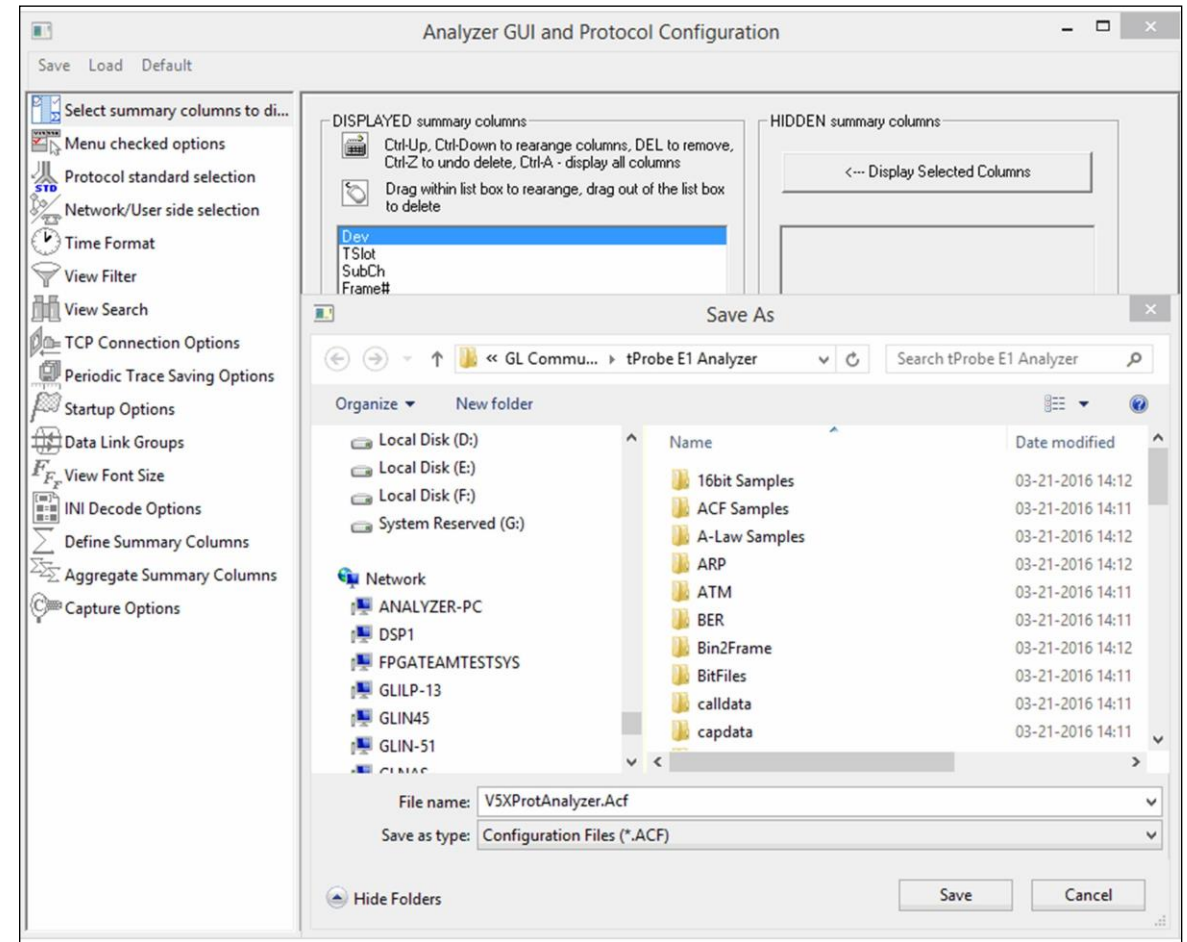
Define Summary Columns

- Required protocol fields can be added through Define summary column option

- User can remove the protocol field which is not required
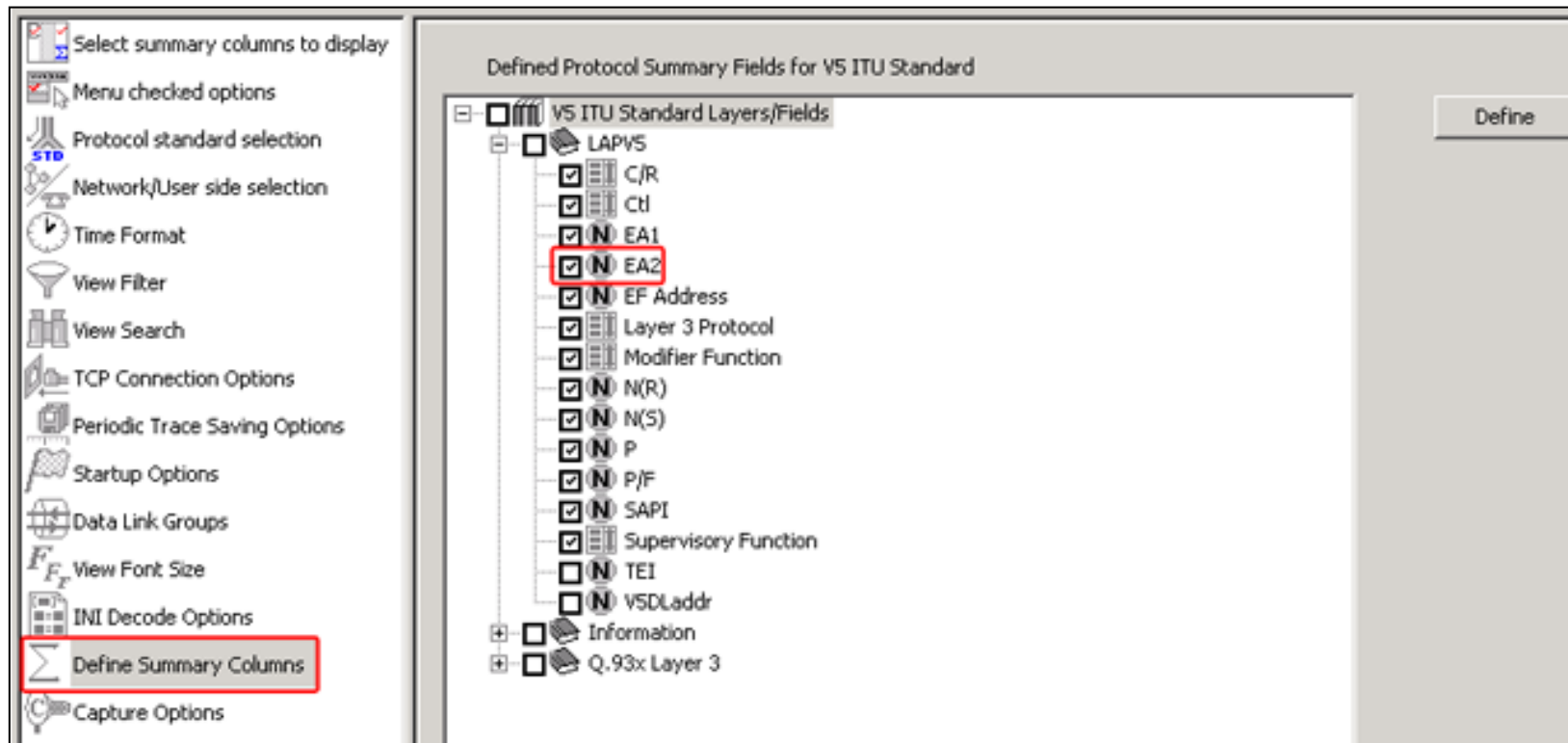
Aggregate Summary Column

- The user can use this option to combine the two or more summary columns and remove unnecessary empty columns into a single Aggregate Summary Column

Selection of Summary Column

Output display in analyzer

Aggregate Summary Column Group

- The user can create multiple aggregate column groups and prioritize the groups as per the requirement to display the summary results efficiently

Save/Load All Configuration Settings

- Protocol Configuration window provides a consolidated interface for all the settings required in the analyzer such as protocol selection, filter criteria, search criteria, and so on

- Configuration settings can be saved to a file, loaded from a configuration file, or user may just revert to the default values using the default option

Thank you