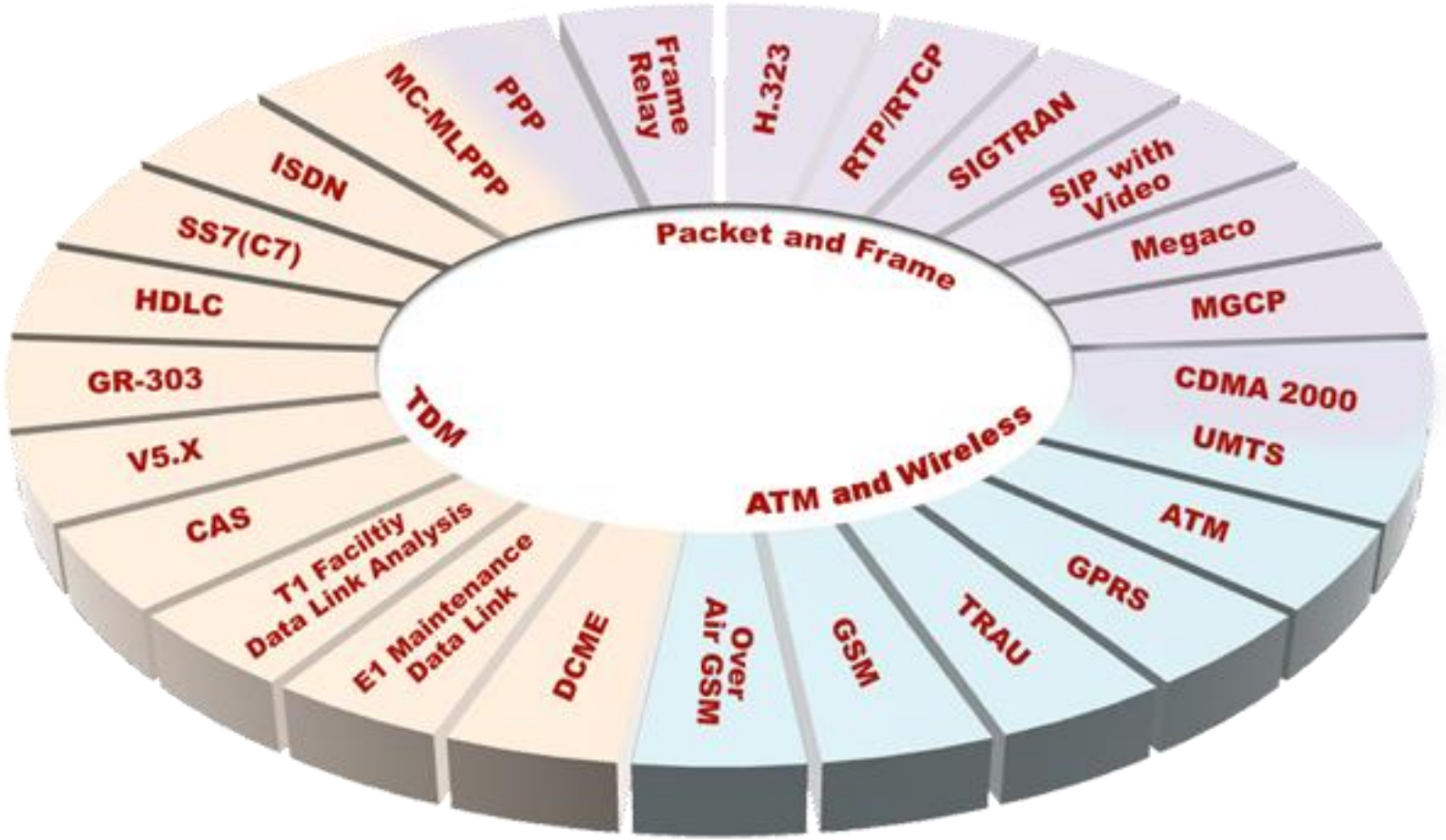
GPRS Protocol Analyzer

GL Communications Inc.
818 West Diamond Avenue - Third Floor, Gaithersburg, MD 20878
Phone: (301) 670-4784 Fax: (301) 670-9187 Email: info@gl.com
Website: https://www.gl.com

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



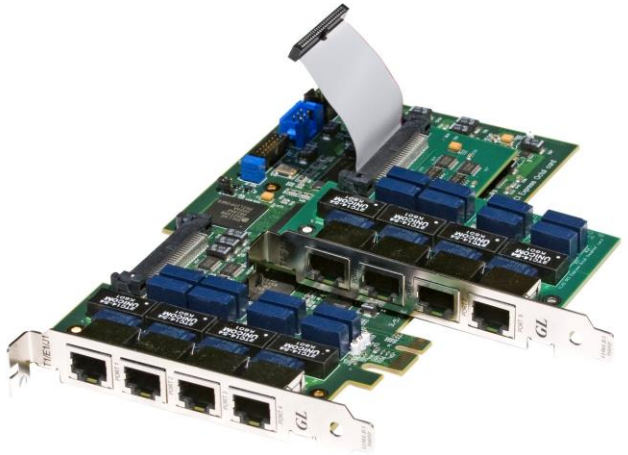
GL Communications

Supported Platforms

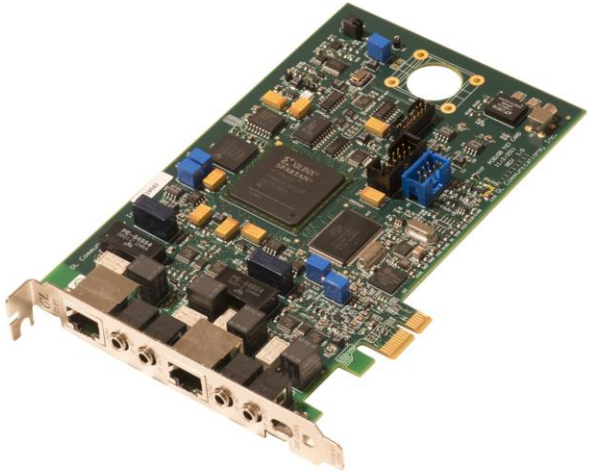
Back Panel

Front Panel

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

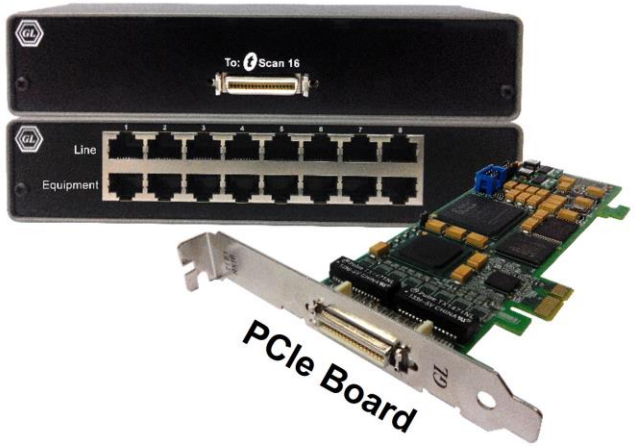


Quad / Octal T1 E1 PCIe Card



Dual T1 E1 Express (PCIe) Board

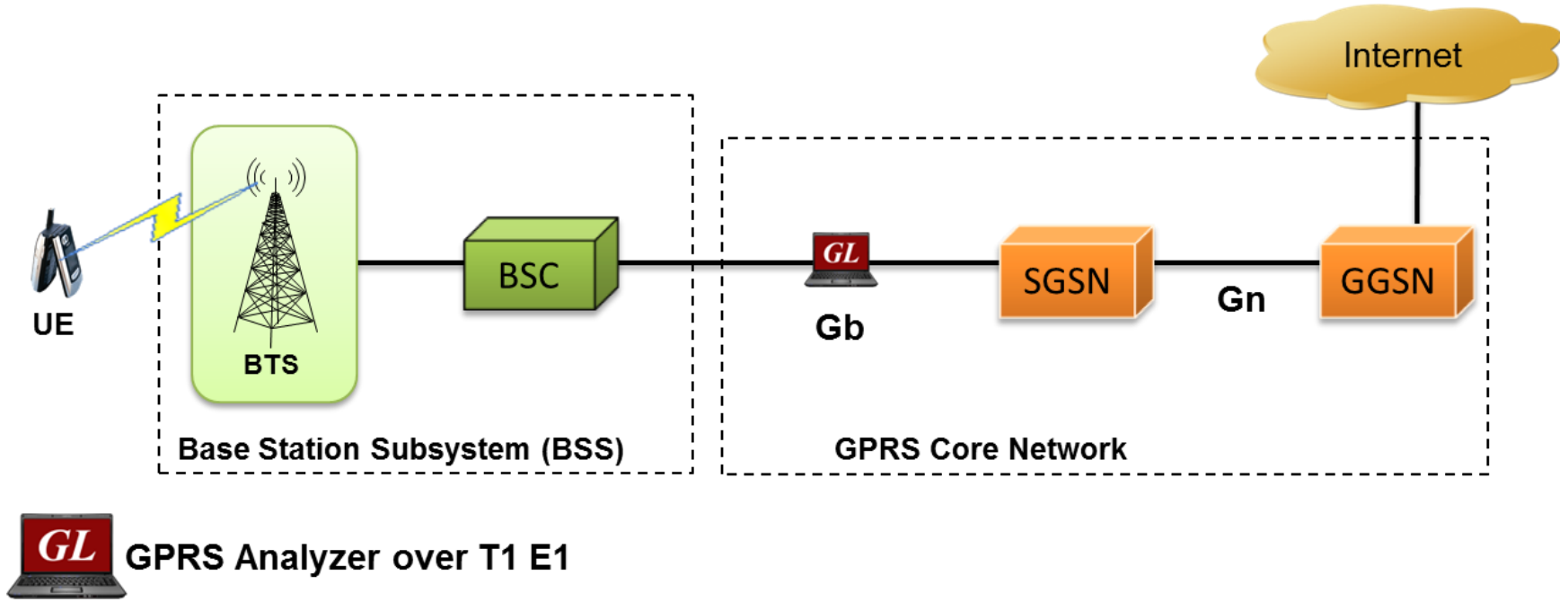
tScan16™ with 16-port T1 E1 Breakout Box



GL Communications

Overview

- GL's GPRS Analyzer performs real time (and offline) analysis across the Gb (T1 E1) interface. The GPRS Analyzer when connected between SGSN and BSS elements of a GPRS network permits the monitoring of Gb interface



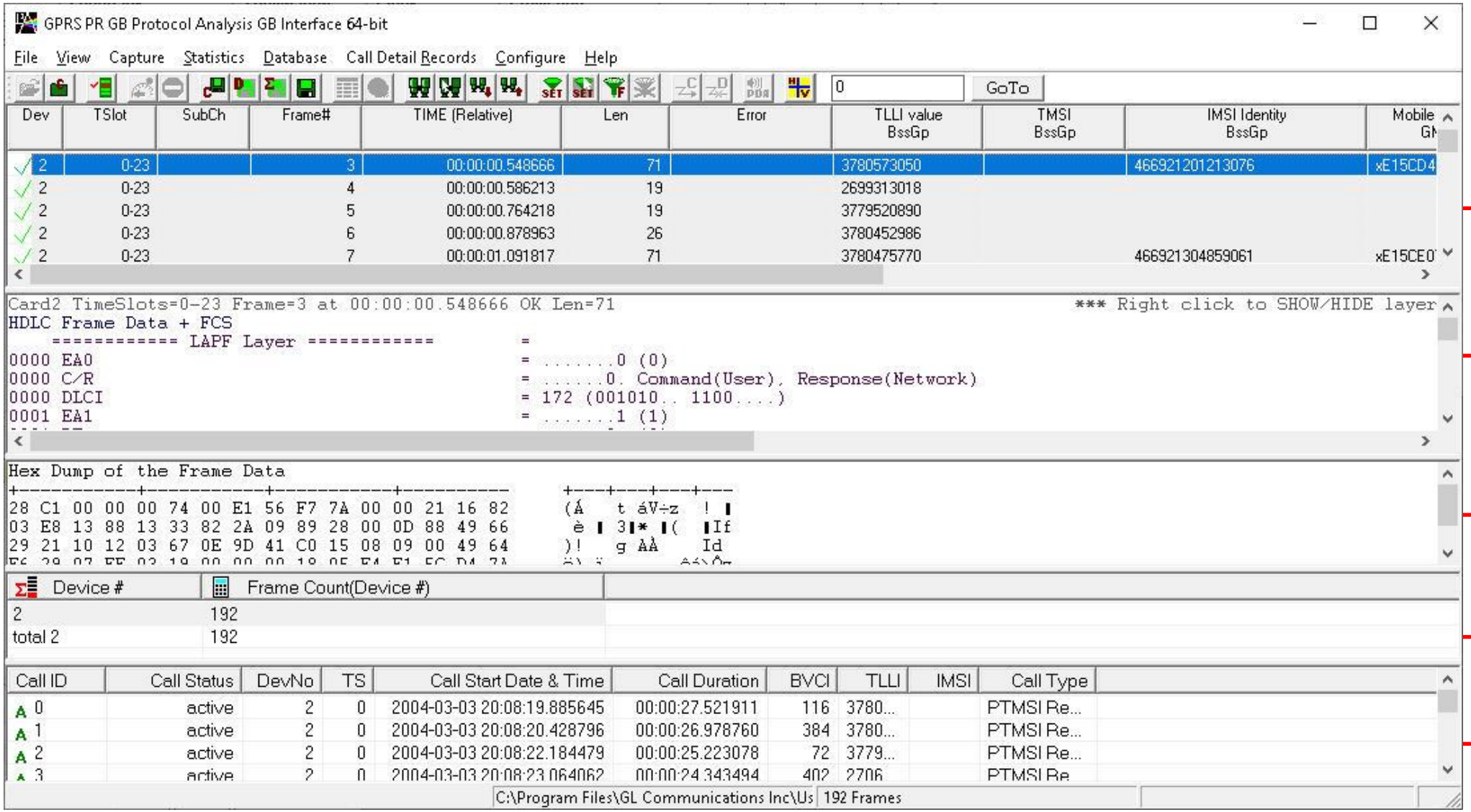
Supported Protocol Standards

Supported Protocols	Specification Used
LAPF	Q.922
BSSGP	3GPP TS 08.18 V8.10.0
LLC	3GPP TS 04.64 V8.7.0
GMM	3GPP TS 04.08 V7.19.0
SMS	3GPP TS 03.40 V7.5.0 / GSM 03.38 version 7.2.0
TOM	3GPP TS 04.64 V8.7.0 (2001-12)-Annex B
SNDCP	3GPP TS 04.64 V8.7.0
SMG	3GPP TS 04.08 V7.19.0
NS	GSM 8.16 ETSI TS 101 299 V8.0.0
IP	RFC 791
TCP	RFC 793
UDP	RFC 768
LLC	3GPP TS 04.64 V8.7.0
MAC	IEEE 802.3
ICMP	RFC 792
GTP / GTPv2 / GTP'	3GPP TS 09.60 V7.9.0 / 3GPP TS 29.060 V6.5.0 / 3GPP TS 32.005 V3.7.0 and 3GPP TS 32.015 V3.12.0

Features

- Summary View displays GB Interface information such as DLCI, FECN, BECN, SAPI, CTL, Session Mgmt Message 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
- Supports filtering and search based on Gb Interface parameters such as Data Link, Network Service, BssGp, LLC, Gprs Mobility/Session Mgmt, SMS, TOM and SNDCP
- Detail View displays packet by packet statistics for particular 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



Summary View

Detail View

Hex Dump View

Statistics View

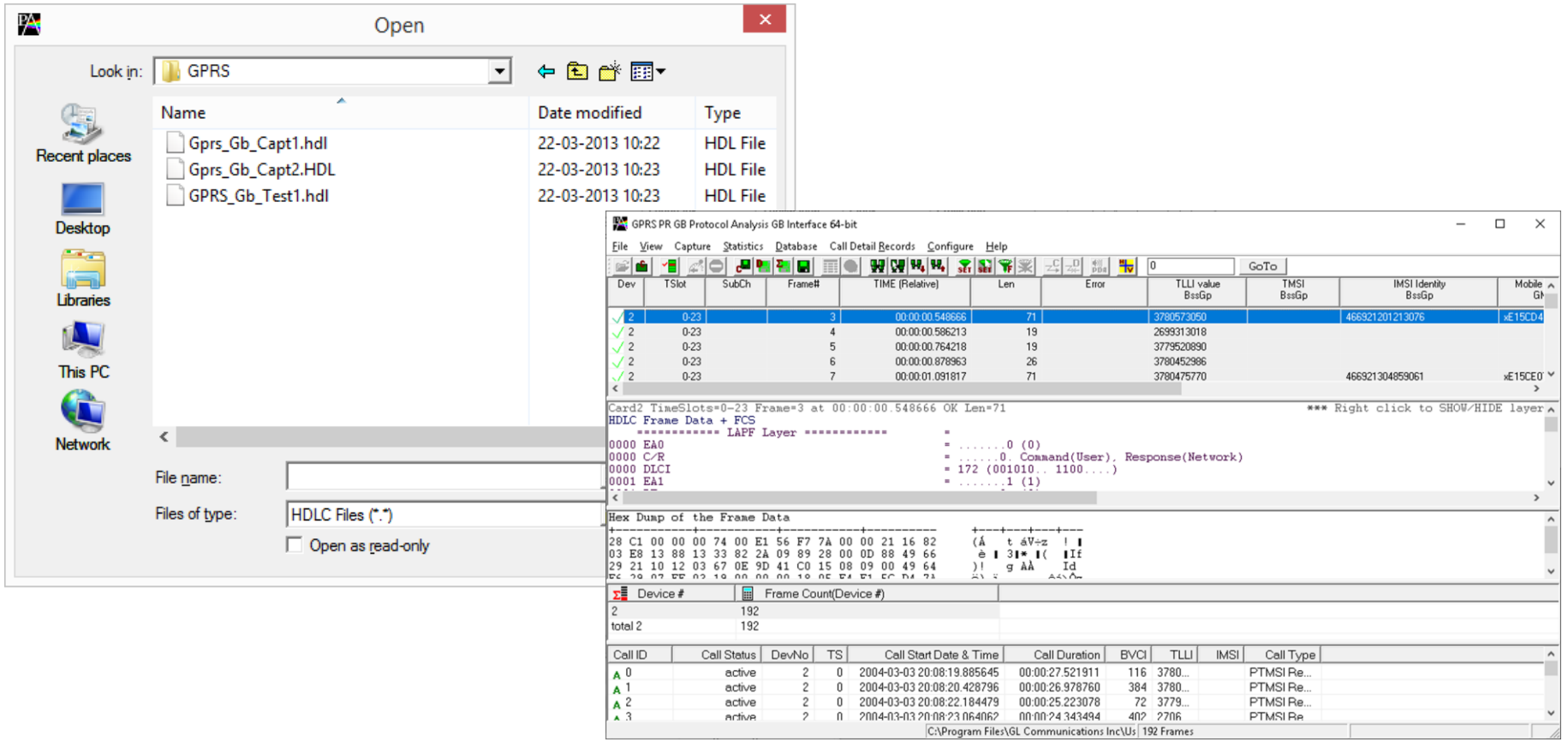
Call Trace View

Different Views

- Summary View displays GB Interface information such as DLCI, FECN, BECN, SAPI, CTL, Session Mgmt Message etc. in a tabular forma
- 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

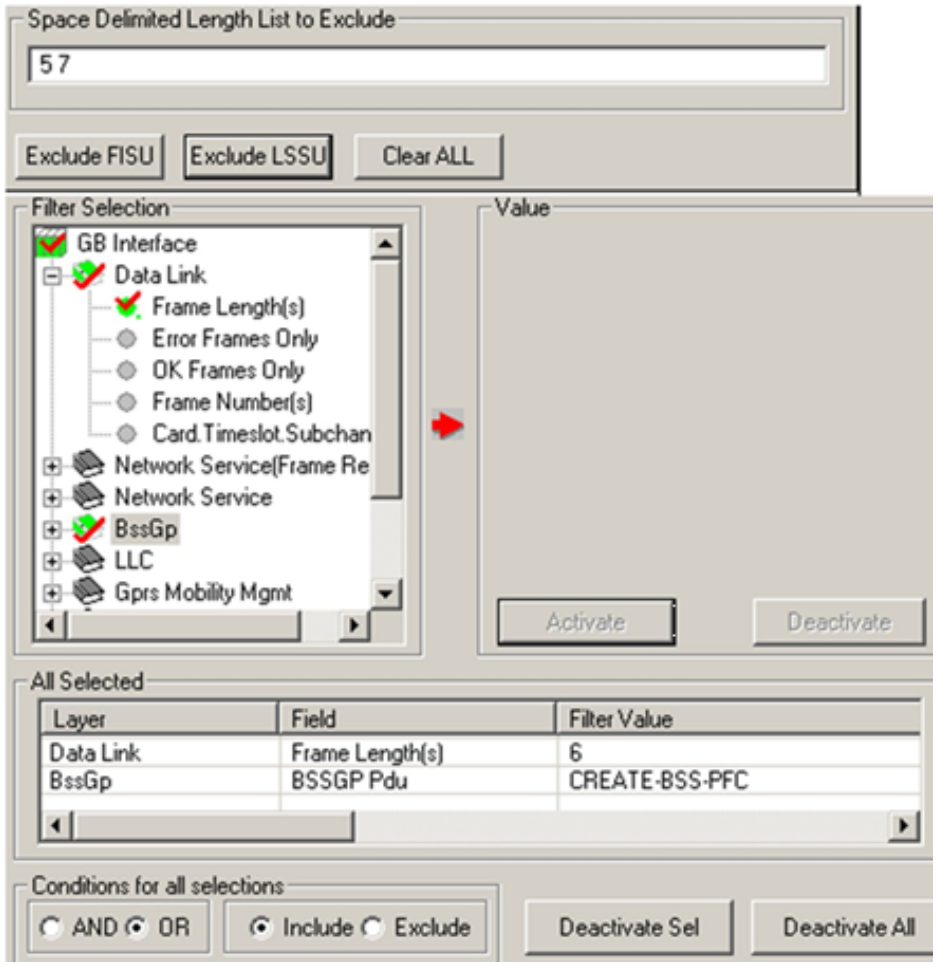
Offline Analysis

- 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



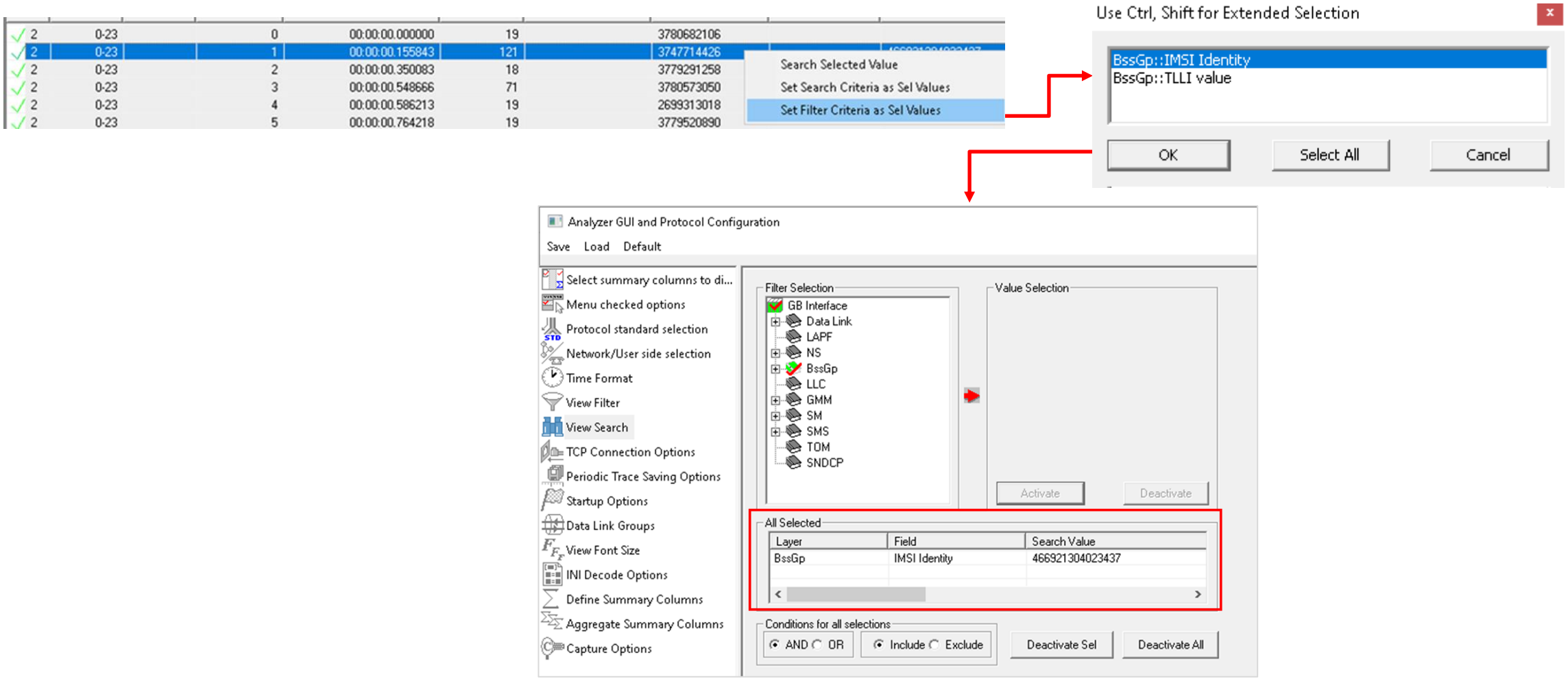
Filtering and Search

- 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 Frame Number, Time, C/R, SAPI, CTL and more. Similarly, search capability helps user to search for a particular frame based on specific search criteria



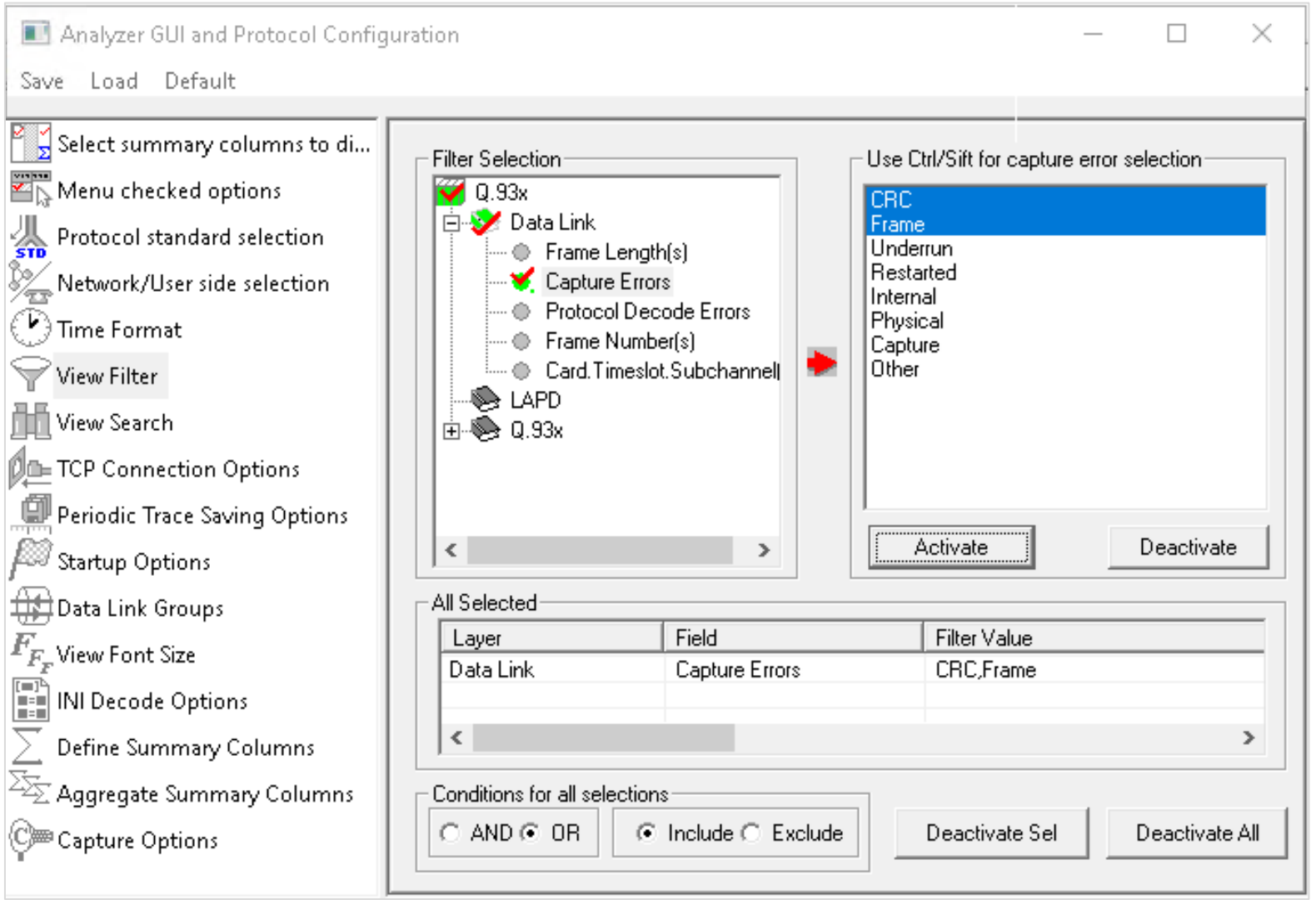
Filtering Criteria From Screen Selection

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



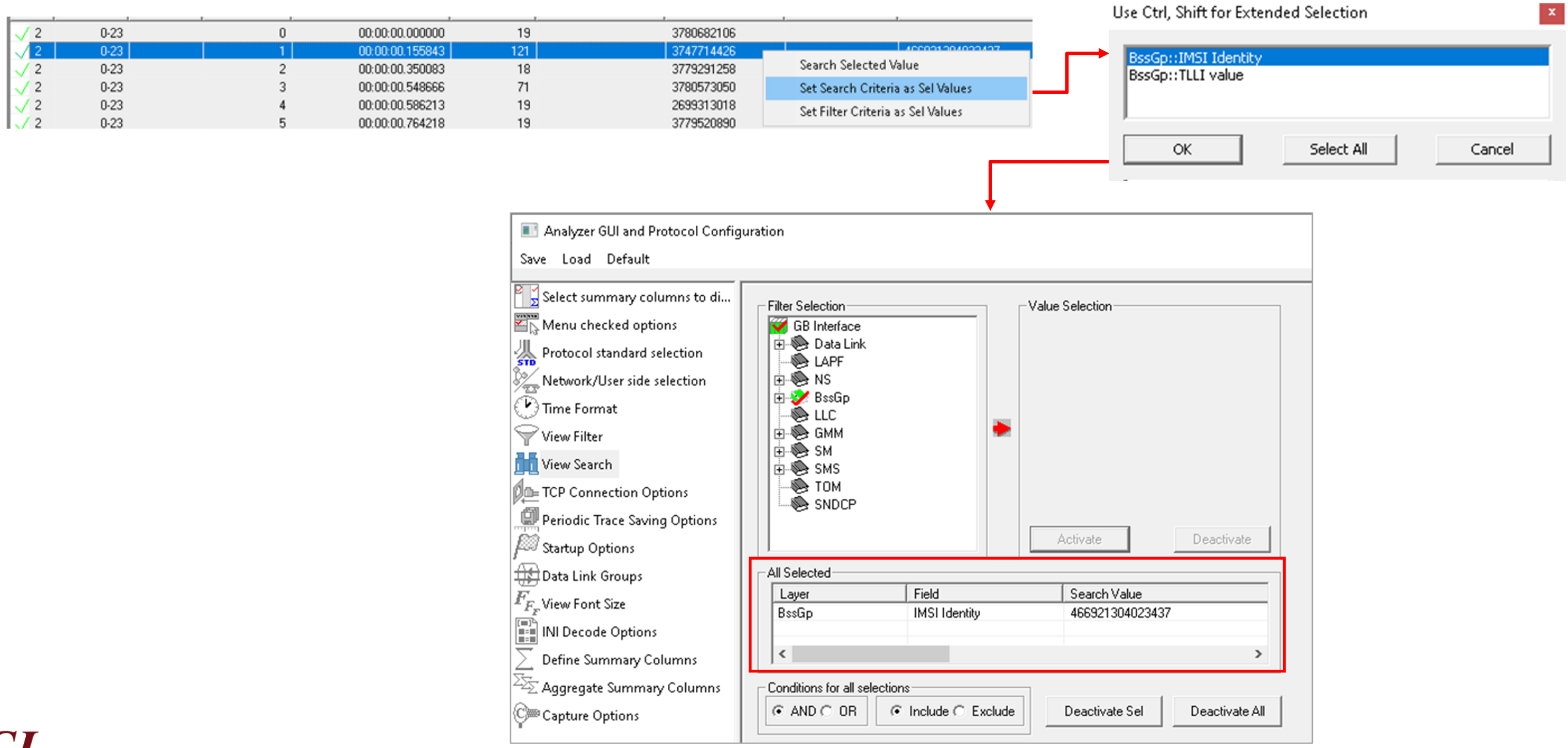
Search Options

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



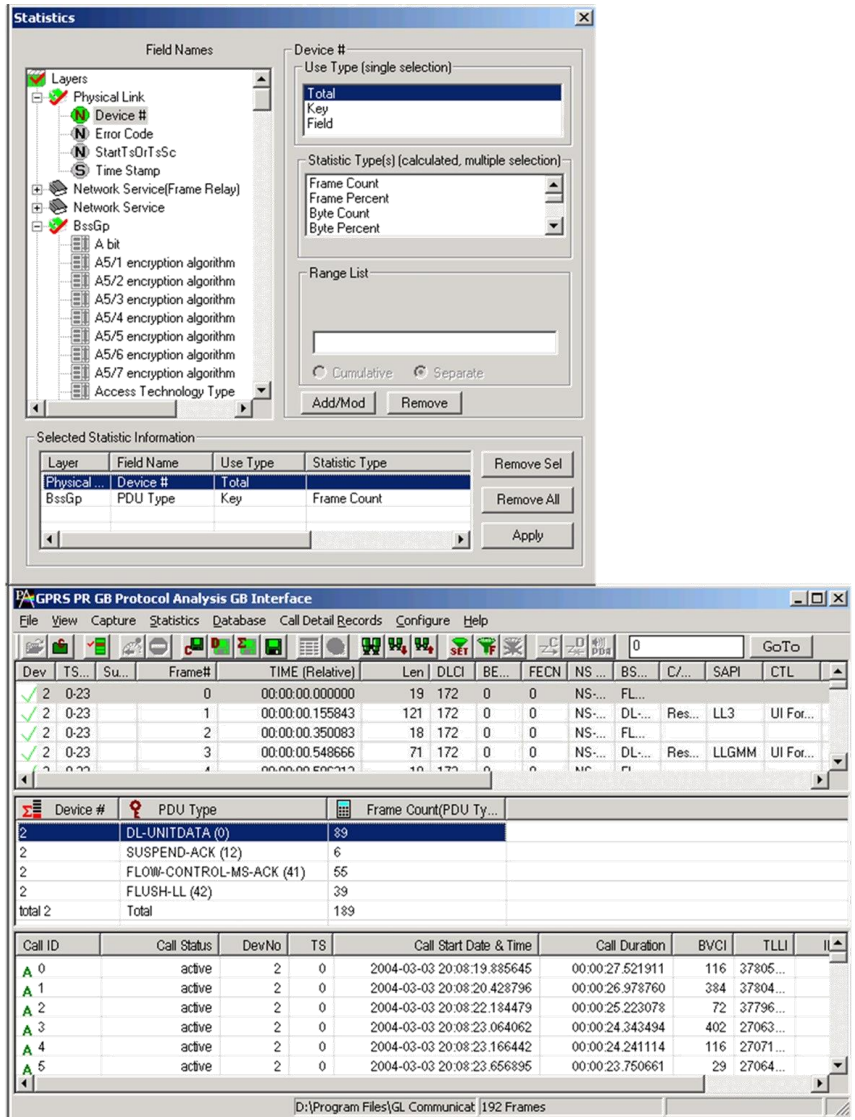
Search Criteria From Screen Selection

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



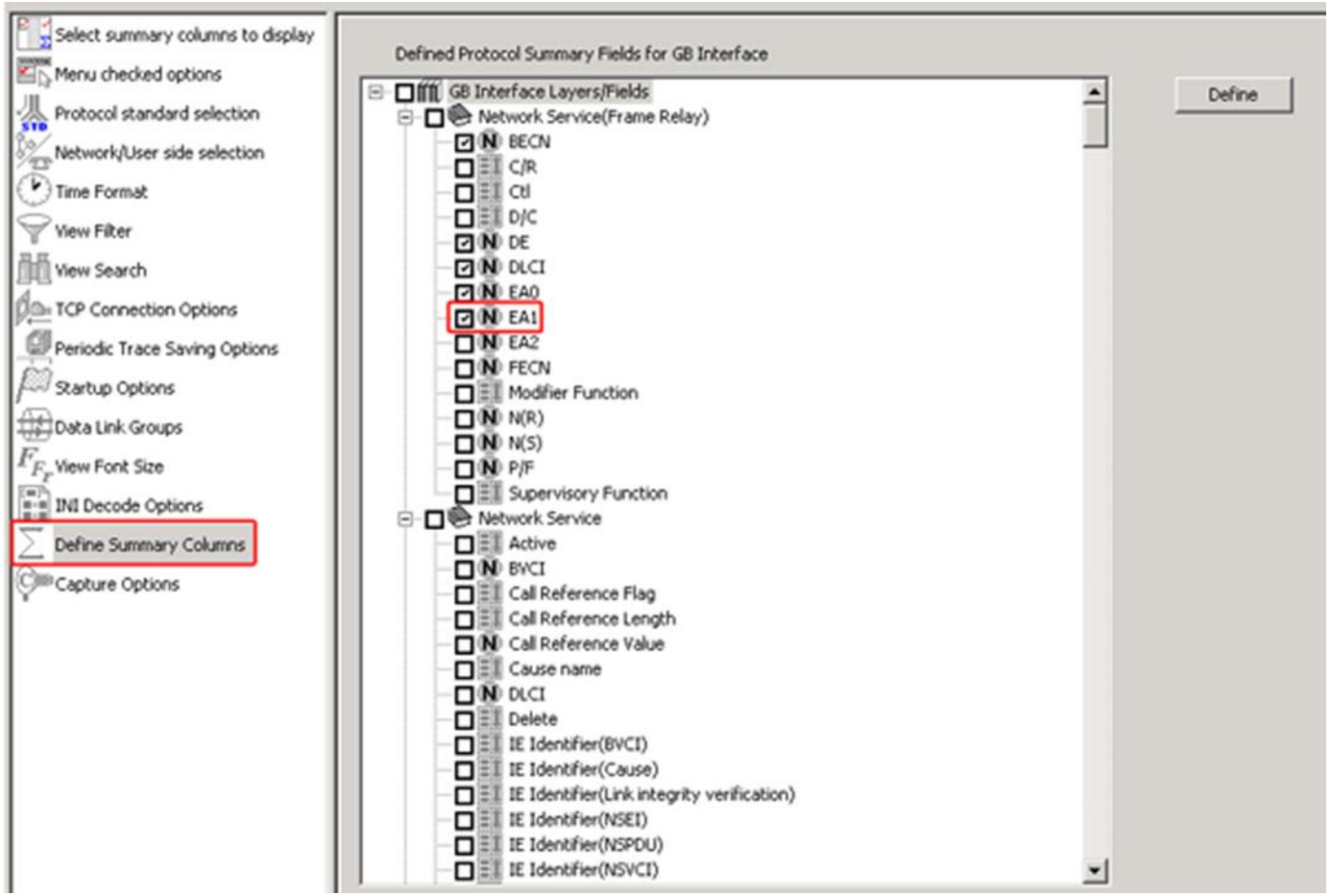
Statistics

- Statistics is an important feature available in GPRS analyzer and can be obtained for all frames both in real-time as well as offline mode



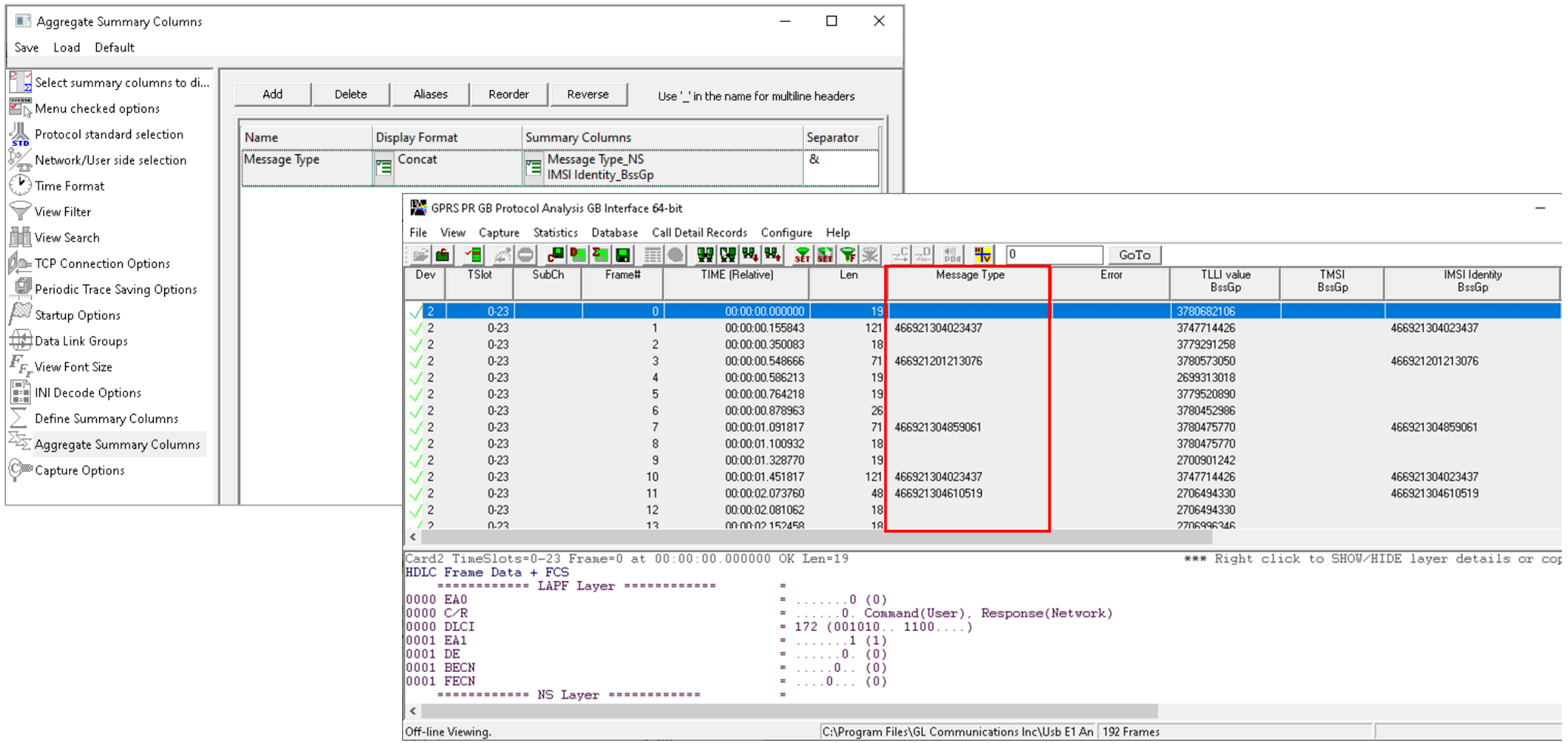
Define Summary Columns

- Required protocol fields can be added through Define summary column option
- User can remove the protocol field which is not required



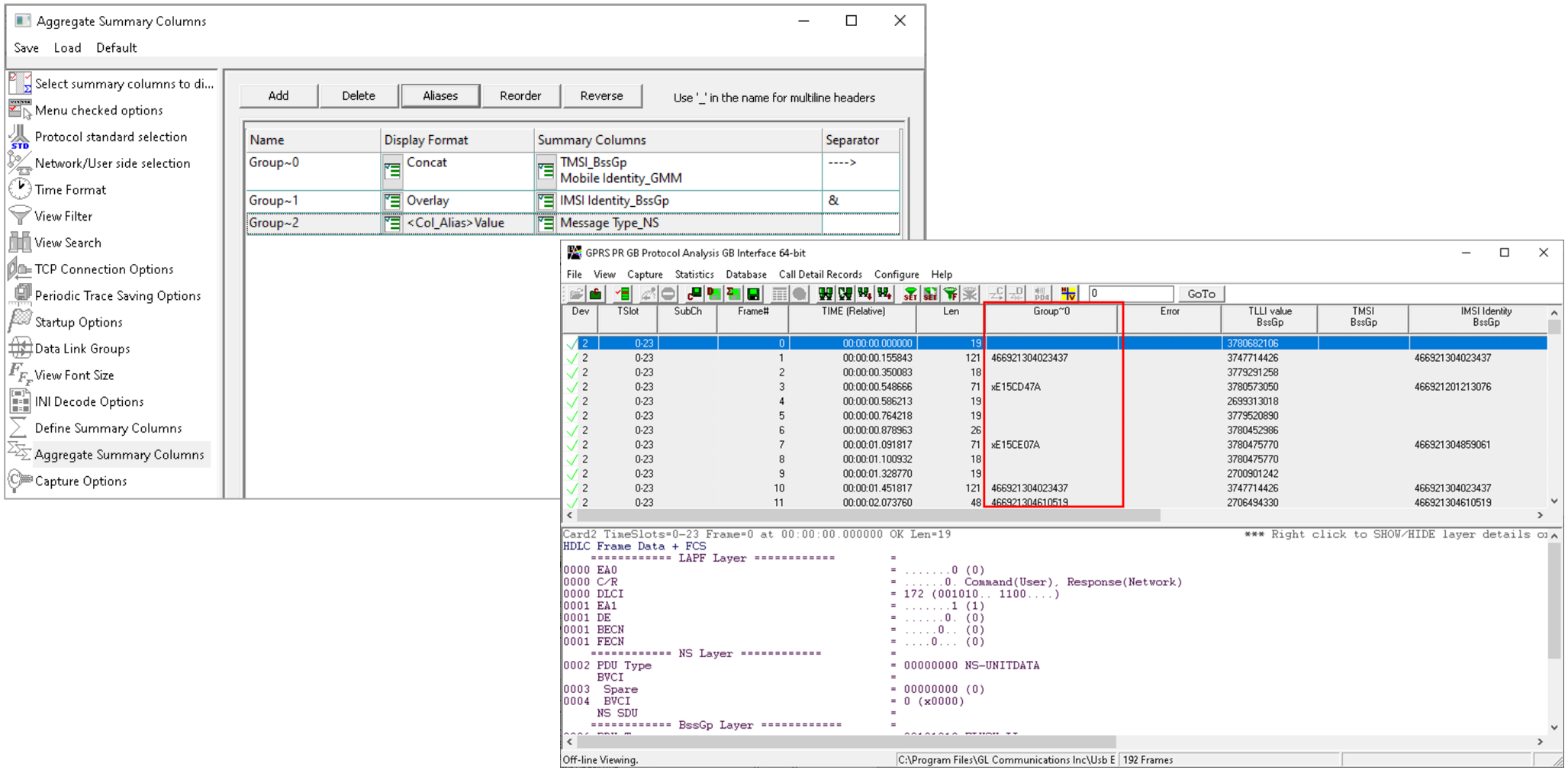
Aggregate Summary Column

- 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



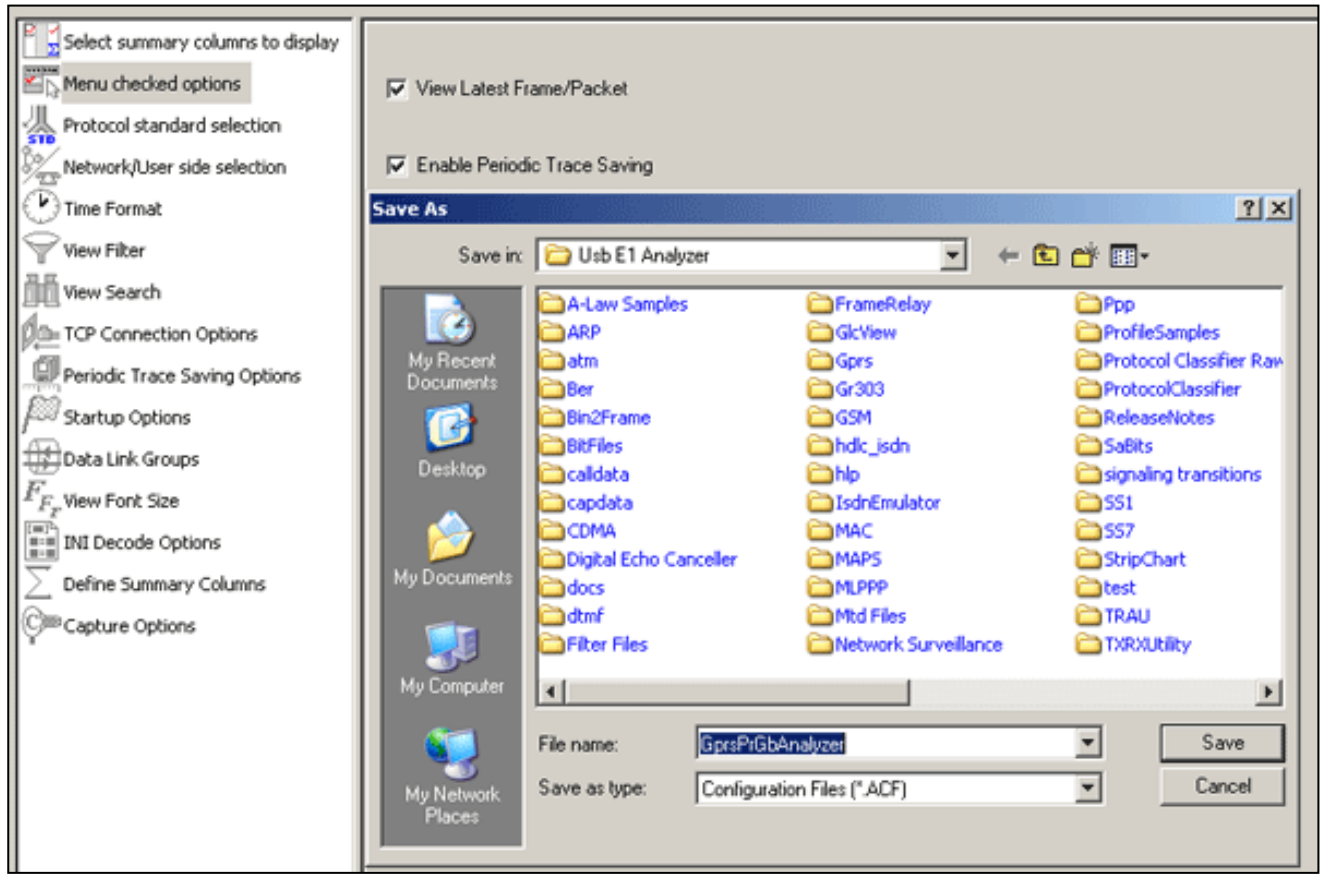
Aggregate Summary Column Group

- 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!