EHS-BTM STANAG 7221 Bus Transaction Monitor



Overview

The EHS-BTM STANAG 7221 Bus Transaction Monitor Svstem provides comprehensive Test а communications analysis environment for a STANAG 7221 data network. Operating unobtrusively on the STANAG 7221 data bus, the EHS-BTM records the information exchanged between STANAG 7221-enabled terminals allowing for post-capture analysis of protocol transactions.

The EHS-BTM is comprised of an EHS-BTM-L Network Interface Card housed in a Host Computer. The Host Computer is connected to a STANAG 7221 network and coordinates the operation of the EHS-BTM-L and the EHS-BTM-L Software.

The EHS-BTM Analyzer, a software package running on the Host Computer acquires telemetry from the STANAG 7221 network under surveillance. This data, accumulated by the EHS-BTM Recorder, can be analysed using the EHS-BTM Browser. The EHS-BTM Analyser is written in TCL, a flexible scripting language allowing for application specific modifications. If you wish to pursue modifications to the EHS-BTM Analyser, please contact Edgewater Computer Systems, Inc.

Components

The EHS-BTM STANAG 7221 Bus Transaction Monitor Test System includes:

EHS-BTM STANAG 7221 Bus Transaction Monitor

- Linux PC running an EHS-BTM-L PCI Mezzanine Card
- Power Cable
- PC to MIL-STD-1553B Bus Breakout Cable

EHS-BTM Analyzer Software

- EHS-BTM Recorder
- EHS-BTM Browser

EHS-BTM Analyzer User Manual

| Bus Command Frame | | |
|-------------------|------------------|------------------|
| Command 0 | Command 1 | Command 2 |
| 4 Packets | 4 Packets | 4 Packets |
| Transferred | Transferred | Transferred |
| Data | Data | Data |
| Acknowledged | Acknowledged | Acknowledged |

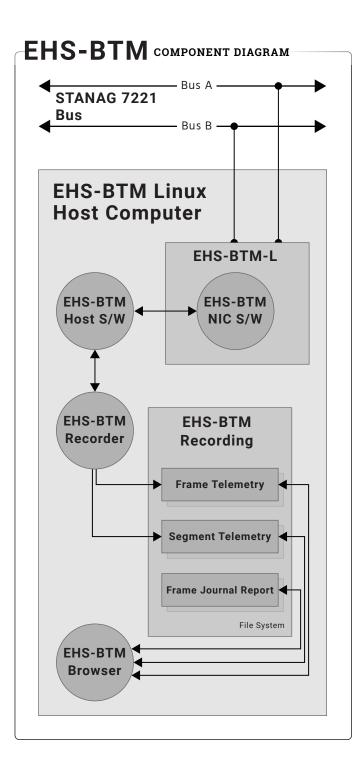
| | us:B Va |
|------------------------------------|--|
| | Seg: 0 Hdr: |
| File View Search Preferences | : Bus:B Variable |
| Sequence # Time: uS dr TAF | : Bus:B Variable: |
| 1307432001 ⁰ 5 TAF | |
| | : Bus:B Variable:O age:0x0000000000 Fms:0 FCCRC:628 FCFEC:00/00 PldS:0 ACK |
| 1307432004 1136 1307432005 2046 | TRStr SrcRT:0 Date: 0x0000000000 FrmS:0 FCRC:6235 (CHEC:10/c00 PldS:0 ACK Date: 0x0000000000 FrmS:2 FCCR:E52A FCFEC:10/c00 PldS:12 PldCi Dictric TH12 Dusit Ack FCCR:E52A FCFEC:10/c00 PldS:12 PldCi |
| | TRStr SrcRT:1 BlkCnt:5 TMI:3 Bus:B Ack:Y Retry:N DualBusTx:N BlkCnt:5 TMI:3 Bus:B Ack:Y Retry:N DualBusTx:N |
| 1307432006 2595 | TRStr SrcRT:1 x14 Seg#: 0 Len:2048 [SEG Data(1568); [Label: 17 Vi0 crc:0x07)-> |
| TRF | Bus:B Variable distissed: 0 Len:2048 1850 Data(1568): (Label: 12 Y00 crc:0x07)-> Seg: 0 Hdr: <u>0</u> 40569(1) 0 Len:2048 1856 Data(1568): (Label: 17 Y10 crc:0x07)-> Seg: 0 Hdr: <u>0</u> 4050(1) 589(1) En:2048 1856 [JBB Data(1568): (Label: 12 Y00 crc:0x07)-> |
| 1307432007 3658 ? | |
| | Seg: 1 Herotopo PaduitX20 Seg#: 0 Len:2048 ISE Data(156B): (Label: 10 V:O Orc:0X46)-> Seg: 2 HaritX62080000 PaduitX22 Seg#: 0 Len:2048 ISE Data(156B): (Label: 10 V:O Orc:0X46)-> |
| 1307432008 4595 ? 93 | Seg: 3 Hár:NOX306000 PaduiDX23 Seg#: 0 Len:1536 [SEG!HDR Bata(1568): [Label: 10 V:0 crc:0x46)-> 16 TRF: Bus:B Variable:0x0000000000 Message:0x0000000000 FrmSz:5 FCCRC:9730 FCFEC:u0/c00 PldSz:660 PldC! Sec: 0 Hár:NS600000 PaduiDX20 Sec#: 0 Len:2048 [SEG Data(1568): [Label: 3 V:0 crc:0x16)-> |
| | Seg: 1 Hdr:0x61080000 Padu:0x21 Seg≢: 0 Len:2048 [SEG Data(1568): [Label: 23 V:0 crc:0x15)-> Seg: 2 Hdr:0x62080000 Padu:0x22 Seg≢: 0 Len:2048 [SEG Data(1568): (Label: 23 V:0 crc:0x15)-> |
| < | Seg: 3 Hdr:0xE3050000 Padu:0x23 Seg#: 0 Len:1280 SEG HDR Data(1568): (Label: 23 V:0 crc:0x15)-> v |

Edgewater EHS-BTM Browser

ORDERING INFORMATION

Part Number: Email: Phone: Available: EHS-BTM sales@edgewater.ca +1 613 271 1101 x3074 Now

EDGEWATER COMPUTER SYSTEMS, INC



STANAG 7221

Promulgated by the NATO Standardization Organization in May 2015, STANAG 7221 enables the rapid and incremental integration of robust and deterministic data-centric capabilities demanded by today's military operators while delivering those capabilities at a fraction of the cost compared with conventional approaches.

STANAG 7221 defines a broadband, real-time data bus standard for transmitting waveforms along with a series of appendices describing various physical media interfaces. Edgewater's 7221 family of network interface devices support STANAG 7221 Appendix 1, which defines interoperability on a STANAG 3838/MIL-STD-1553B data bus to deliver 100 times more data capacity while operating concurrently with existing STANAG 3838/MIL-STD-1553B signaling.

Engineering Consulting

Edgewater's highly skilled engineering staff has extensive experience meeting the demands of major military organizations such as the United States Air Force and the Canadian Department of National Defence. For product support or to discuss the implementation of STANAG 7221 in a custom application, please contact us.

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