

MILITARY & DEFENSE



NTDS I/O Analyzer

SPECIAL FEATURES

- Monitor System Performance
- Debug New Software
- Evaluate Timing and Sequence
- Collect Data
- Integrate New Equipment

NTDS I/O Analyzer

An essential tool for development, maintenance, recording and analysis of NTDS systems

The NTDS I/O Analyzer provides insight and visibility enabling user to quickly and efficiently analyze timing relationships, message protocols, throughput, and data integrity on all types of NTDS interfaces. It is capable of monitoring any combination of NTDS Parallel Type A, B, C, H and NTDS Serial Type D, E channels as defined in the MIL-STD-1397 revision B and C specifications regardless of NTDS mode. The channels are connected to existing NTDS cabling with NTDS tap boxes and extract ongoing communication. Each word of NTDS information received is time-stamped with a 125 nanosecond resolution clock ensuring highly accurate timing measurements. Data collected is stored locally for analysis and can be transmitted to external equipment enabling remote troubleshooting, event reconstruction, or time-critical feedback on system performance.

An optional IRIG-B input can be utilized to ensure that captured information is time tagged with high precision and will not drift over the life of the capture. This allows for accurate correlation of information between multiple pieces of equipment.

Capture Modes and Triggering

Captures can be configured in multiple different ways to allow for pre-trigger data and manual or automatic discontinuation of captures based on various attributes such as maximum capture size and triggers. Triggers can be set to initiate and cease captures based on masks or other relevant conditions. Word types can be used as triggers for NTDS Type A, B, C, H Parallel channels such that External Interrupt (EIE), External Function (EF), Forced External Function (FEF), or Data word types can be selectively utilized. NTDS Serial Type E channels can be set to trigger on sink timing and parity error conditions. Control frames for both NTDS Serial Types D and E channels can be set as triggers as well. All word types including control frames can be selectively removed from the incoming information stream as desired.

Data Display and Export Capabilities

The information captured is displayed in table form in sorted order based on time tag and various options exist for displaying the time stamp including delta time between each word captured. Information can be set to display in decimal, binary, octal or hexadecimal format. An integrated search capability allows for various properties to be configured in order to efficiently locate information. Export of capture files to CSV and Excel format is supported and an Excel add-in is provided to allow for the high resolution time-stamps to be utilized while manipulating data.

TECHNICAL SPECIFICATIONS

Rackmount

- 19" Rack Mountable
- Slide Rails Included
- Choice of up to 5 NTDS Parallel Type A,B,C, H and Serial Type D, E Full Duplex Channels
- Dual Removable 500GB+ Hard Drives
- Blu-Ray RW Quad, Triple, Dual BD-R with BDXL support for 128GB Write Once
- 10BASE-T/100BASE-TX/1000BASE-T Ethernet
- Dual USB v2.0 Ports
- RS-232
- 12.1" Display
- 110/220VAC, 60Hz, Single Phase
- Operating Temperature 0°C to 55°C
- Storage Temperature -23°C to 70°C
- Humidity Up to 90% (non-condensing)



NTDS I/O Analyzer Rackmount

Portable

- Luggable Unit with included Transport Case
- Choice of up to 3 NTDS Parallel Type A,B,C, H and Serial Type D, E Full Duplex Channels
- Dual Removable 250GB+ Hard Drives
- DVD +/-RW
- Dual 10BASE-T/100BASE-TX/1000BASE-T Ethernet
- Four USB v2.0 Ports
- 17" Display
- 110/220VAC, 60Hz, Single Phase
- Operating Temperature 0°C to 55°C
- Humidity Up to 90% (non-condensing)



NTDS I/O Analyzer Rackmount

NTDS

- MIL-STD-1397C and MIL-STD-1397B compliant
- NTDS Parallel Types A,B,C,H
- Parallel Types are software selectable
- NTDS Modes Inter-computer, Computer, Peripheral Supported
- Half Tap Option
- NTDS Serial Type D, E
- Control Frame Capture Supported
- Type E Sink Timing Error Detection
- Type E Parity Error Detection
- Ignore 4th Bit Setting

IRIG-B

- 0.35-7V (rms) sine wave, amplitude modulated, 1kHz carrier detect
- 3:1 to 6:1 mark-to-space ratio
- 10 millisecond maximum carrier failure detect time
- 62.5 nanosecond timing accuracy