



Detective Version 2.20 Release Notes

- Enhanced Device Class Decoding: String descriptors are now fully decoded as part of Device Class traffic analysis. In addition, the HID Class decoding software is now bundled with the analyzers, rather than made available as an optional component.
- Transaction Error Reporting: The user can invoke a new transaction error report, which adds a variety of transaction-related error conditions to the packet/field content errors previously diagnosed by the CATC analyzers. Of particular note are tests for a variety of time-out conditions (e.g., IN or OUT operations that do not result in the expected response), and a check for non-compliance with the DATA0/DATA1 toggling rules. This report can also be saved to a file.
- Timing & Bus Usage Computation: A variety of informative timing and bandwidth-related data can now be easily computed by means of an integral timing and bus usage calculator.
- Statistical Reporting: Statistical reports on protocol traffic data files can now be generated, listing packet count, frame count, empty frame count, transactions (by device), control transfer details, and field & transaction errors.
- Expanded Display Options: In addition to the traditional global view of recorded traffic, it is now possible to display only that traffic relevant to a particular device and function (i.e., address and endpoint). Further, Start-Of-Frame (SOF) packets, as well as any transactions resulting in a Negative Acknowledgment (NAK) can also be eliminated from the display. This can result in a significantly less cluttered display of protocol traffic data.
- I/O Response Time Computation: A new pop-up menu has been added for use with IN and OUT packets, permitting response time computation (the elapsed time between the I/O operation and a positive response from the corresponding device).
- Bulk/Isochronous Data Export: The new I/O Operation pop-up menu also enables the wholesale export of bulk and isochronous data to an external ASCII text file.
- Packet Marking: The operator can now mark a particular packet of interest (as well as relocate and clear such a marker), to facilitate the measurement of events preceding and following the designated packet. The marked packet can also be used as the target of search operations.

- User Interface Changes: The earlier "Display" and "Zoom" menus have been replaced by "Report" and "View" menus, with an improved organization of functions. Similarly, the toolbar has been somewhat reorganized, in order to optimize use of the most common analyzer features.