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# USB Protocol Suite™ 7.70 Build 2822

## Release Notes

Compatible with **USB Compliance Suite 3.56 b 755** or higher.

Updated: October 3, 2018

[\(Link to changes in this release\)](#)

***Note to M310C/M310P Power Delivery Exerciser Users:***  
**See warning below in Section 2.5.**

***Note to Voyager M3x users:***

The 7.35 and later release includes an update the Boot ROM image to fix a critical USB connectivity issue.

The system will need to be power-cycled a few times during the upgrade procedure. Please be patient and wait while it goes through the update mechanism.

# Table of Contents

1. Overview
  - 1.1 Installation / Driver Issues
  - 1.2 Supported Products
  - 1.3 Cable Loss Note
2. System Requirements
3. Release Notes
  - 3.1 What's New
  - 3.2 Known Issues
  - 3.3 API
4. Previous Releases
5. Support

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## 1. Overview

This Read Me file contains last-minute product information for the USB Protocol Suite™ software for Microsoft Windows.

For full instructions on using the software and the hardware, please see the User's Manual and other documents provided with this product.

### *1.1. Installation/Driver Install Issues*

#### **1.1.1. Installation Notes regarding Virus Protection Software:**

On certain systems running Trend Micro anti-virus software, Trend Micro's Ransomware and/or Predictive Machine Learning features might improperly interfere with the installation process, causing some or all of the following issues:

- o "Driver Installer" error during the installation.
- o Application fails to launch after installation.
- o CrossSync application fails to launch after installation.

Software packages signed by Teledyne LeCroy, Inc., do not contain any malware nor viruses. If you encounter any of these issues, please contact your IT administrator about disabling Trend Micro's Ransomware and/or Predictive Machine Learning features, and then re-install the Teledyne LeCroy software.

#### **1.1.2. Microsoft Redistributable Installation Issues**

On some systems, during software installation, you might encounter the message "The installation of Microsoft Visual C++ 2015 Update 4 Redistributable Package (x86) appears to have failed. Do you want to continue with the installation?" If you see this, click Yes to continue the installation. The application will work properly. **To avoid further occurrences of the error, go to the Windows Control Panel and choose the option to Repair the installation of "Microsoft Visual C++ 2015 Update 4 Redistributable Package (x86)".** You might also encounter the same issue with the 2010 and/or 2012 versions of the Visual C++ Redistributable Package; this same advice applies to those versions as well.

### 1.1.3. Driver Installation Notes

If the installer balks at installing the drivers, try the following step:

#### Clean Install

1. Make sure USB Protocol Suite is uninstalled from the Control Panel -> Programs and Features window.
2. Delete the following folders if they remain:  
C:\Program Files (x86)\LeCroy  
C:\Program Files (x86)\Common Files\LeCroy Shared  
C:\Users\Public\Documents\LeCroy
3. And delete these registry entries if they exist:  
HKEY\_CURRENT\_USER\Software\CATC  
HKEY\_CURRENT\_USER\Software\LeCroy
4. Restart the PC
5. Right-click on the installer and select "Run as administrator" to reinstall the software.

#### Manual Driver Installation

Then if that doesn't work, try manually installing the drivers from the Device Manager on their PC:

1. Open the Device Manager on the PC
2. Make sure to set the View to "Devices by Type".
3. Find the analyzer in the list and right click on it.
4. Click the Update Driver option
5. Choose "Browse my computer for driver software"
6. Search for the drivers in the following file location: C:\Program Files (x86)\LeCroy\USB Protocol Suite\Drivers . If you are using Windows 10, please choose either "x64-Win10" or "x86-Win10" based on the type of system you have.

## 1.2. Supported Products

### Notice of End of Support for Legacy CATC and LeCroy USB Analyzers

The following chart shows the levels of support for our USB Analyzer family.

Product	End-Of-Life Year	Supported / Final Release Numbers		
		Product Validated	Product Supported but Not Validated	Trace Files Readable by Application
USBMobileHS	2008	4.80	7.30	7.60
MobileT2	2013	4.80	7.30	7.60
USB Advisor	2011	4.80	7.60	7.70
USB Tracer/Trainer	2010	4.80	7.60	7.70
Mercury T2	Available	Supported	Supported	Supported
Mercury T2C	Available	Supported	Supported	Supported
Mercury T2P	Available	Supported	Supported	Supported
Advisor T3	Available	Supported	Supported	Supported
Voyager M3	2011	4.80	Supported	Supported
Voyager M3i	2014	7.65	Supported	Supported
Voyager M3x	Available	Supported	Supported	Supported
Voyager M310	2017	Supported	Supported	Supported
Voyager M310C	2018	Supported	Supported	Supported
Voyager M310P	Available	Supported	Supported	Supported

If problems occur on these EOL'd analyzers, you will have to uninstall the newer software and install **Release 4.80 or Release 7.60** which are available on the Teledyne LeCroy Web Site.

**No bug fixes will be implemented for products which are not marked as “Supported” in the “Product Validated” column.**

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## 1.3. Cable Loss Note

### Notice of 3.1 Super Speed + 10 Gbps Gen 2 Cable Loss Issue on Voyager M310/M310C/M310P

We advise customers to be careful to create a setup that has the best Signal Integrity as possible, due to these stringent USB 3.1 SS+ Gen 2 10 Gbps requirements. The short cables shipped with M310 and M310C have been tested to meet these requirements. All M310C/M310P Type-C cables have the Teledyne LeCroy label and should be the only ones used.

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## 2. System Requirements

The following is a list of recommendations for the host machine that runs the USB Protocol Suite™ application and that is connected to the USB Analyzer systems.

For optimal performance, it is recommended that the software is installed and operated on a host machine that is of a recent generation of personal computers architecture. However, the software should also operate on machines that are below the minimum requirements specified here, at the cost of slower performance, provided that memory, storage and display requirement are kept.

### 2.1. Software

#### **Operating System (Voyager M3i / M3x / M310 / M310C / M310P, Advisor T3, Mercury T2 / T2C / T2P):**

- Windows 10 (x86 and x64), Windows 8.1 (x86 and x64), Windows Server 2012 (x64), Windows 7 (x86 and x64), Windows Server 2008R2 (x64). Windows XP is **NOT** supported.
- The latest Service Pack available for the Windows OS in use is required.
- It is recommended that you use one of the supported 64-bit Windows versions listed above as they allow using more RAM than the 32-bit ones.
- **You may need to turn off Virus Protection software to install this application.**

*Windows 7 and Windows Server 2008 R2: These operating systems may report the Teledyne LeCroy USB device drivers as being unsigned or untrusted. In fact, the drivers are signed with a newer, more secure signing mechanism that is not recognized by these operating systems. Refer to the following article for more information:*

<https://support.microsoft.com/en-us/kb/3025925>

**If you have problems setting up an Ethernet connection, please refer to the USB Protocol Suite User Manual, Chapter: "Installation", section 3.3.**

#### **Required applications:**

Microsoft Internet Explorer, version 6 or newer. To view the manuals, datasheets and other documents, you would need to install 'Adobe Acrobat Reader' (<http://get.adobe.com/reader>). NOTE: Due to a known bug in some versions of Microsoft Edge and Microsoft Reader, it displays some user manuals incorrectly (e.g., solid black boxes where images should be). Teledyne LeCroy recommends Adobe Reader for viewing the user manuals. Microsoft is working on a fix for this.

#### **Note for Non-English Language Systems:**

To load and save filenames with non-English (Unicode) characters, it is necessary that you correctly set the corresponding System Locale in the Operating System.

#### **Note regarding loading of Audio/Video support files:**

CATC Walk Enhanced Markers playback of audio/video files - On some systems, the USB Protocol Suite may not be able to playback audio/video files embedded in markers even if the appropriate media codecs are installed. The root cause is usually a 3rd-party application that installed a faulty filter that prevents the Microsoft DirectShow subsystem from loading the required audio/video filters. One known 3rd-party application that causes this problem is Corel WinDVD v10. The recommended solution is to uninstall Corel WinDVD v10 if it is not being used.

### Important note regarding User File Locations:

Windows user editable files (Automation, Samples, Scripts, etc.) are stored in:

<drive letter>:\Users\Public\Documents\LeCroy\USB Protocol Suite\

This is due to those Operating Systems' policy that the Program Files (application) folders are read-only.

## 2.2. Hardware

### Memory (RAM):

This software application may use up to 64GB or more of the RAM in the host machine. For improved performance of the software, it is recommended that 16GB of RAM is installed on the host machine. Memory as little as 4GB would still allow the software to function, but would limit its performance and user experience with large traces.

### Capturing:

It is strongly recommended to have the host Machine's Physical System RAM and free disk space be at least **three times** the size of the recording buffer you select. This will allow the application to perform best:

System RAM	Max Analyzer Buffer Size
4GB	1.5GB
8GB	3GB
12 GB	4.5GB
16 GB	6GB
32 GB	12GB
64 GB	16GB

### Loading Trace Files:

You should have at least as much physical RAM in the host as the size of your trace file + the size of the folder of metadata for that trace file (Identified by having the same filename.) You can find this value by checking the File Properties of the folder in Windows Explorer. If your physical RAM is smaller than this, lots of swapping to disk will occur, decreasing the performance greatly.

**Minimum system RAM size supported is 4 GB.**

### Non-volatile Storage (SDD or Hard Disk):

- Storage space of 2 GB is required for installing the USB Protocol Suite™ software on the host machine.
- Additional storage space is needed for the operation of the software application and for storing recorded data in files.
- Please remember that storing large captured traces can result in multiple gigabytes of file sizes and can quickly fill your available storage space.

### Display:

- To take full advantage of the rich visualization and analysis of Teledyne LeCroy software it is recommended that the display is set to at least **1050** lines of vertical resolution with at least 24-bit color depth.
- The minimum requirement for the display is a resolution of 1024x768 with at least 16-bit color depth.
- DirectX 9 or OpenGL ES 2.0 (Minimum versions)

**Connectivity:**

- It is recommended that a Gigabit (1000Mbps) Ethernet or a Super Speed 3.1 link is used for the connection with the Voyager M3x/M310/M310C/M310P analyzers. A Gigabit (1000Mbps) Ethernet or Hi Speed USB 2.0 link should be used for the connection with the Voyager M3i analyzer.
- USB 2.0 Full-Speed host interfaces are not supported on Voyager systems.
- For Ethernet host interfaces, both DHCP and Static IP configurations are supported; however, Static IP configuration requires a USB 2.0 connection for first time IP address configuration.
- If multiple analyzers are daisy chained and connected to the same host machine, one Ethernet connection or one USB port is required for each analyzer.
- Mercury T2/T2C/T2P and Advisor T3 support USB 2.0 Hi-Speed or Full-Speed host interfaces.
- Please note that there is no connectivity requirement if the analysis application is used to only view pre-recorded traces.
- For tips as for how to improve on the performance of the Teledyne LeCroy analysis system and more specifically on the performance of the software, please refer to the User Manual.

### *2.3. Supplemental Teledyne LeCroy Applications*

**CrossSync:**

The CrossSync Application is included to allow you to control recording from more than one technology and/or Platform. It also adds the ability to synchronize the viewing of Traces in more than one application. Details on the requirements and usage may be found in the Cross Sync User Manual. This application is included without charge in the USB Protocol Suite installation.

**USB Compliance Suite:**

The USB Compliance Suite enables the testing of USB Hosts and Devices to verify their compliance with the USB Specification. It is an optional feature which may be purchased for use on Voyager systems. Details on its operation can be found in its manual: USBComplianceSuiteUserManual.pdf.

**The above applications are NOT designed to be run at the same time, nor in conjunction with any other applications which connect to the USB Protocol Suite through the Automation API.** If you use any of these applications, please close the applications and verify that USB Protocol Suite has shut down before running any other of these applications or USB Protocol Suite in its normal configuration.

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**Note: Users of CrossSync, USB Compliance Suite or any code which uses Automation Interface to the USB Protocol suite:**

If you run into a problem where the system says it cannot write the trace files to the disk, please check the following:

- The destination folder of the Trace File has write/create permissions for this capability. (Often this is NOT the case when a network file system is the target directory.)

- Try changing the Firewall Settings for USB Protocol Suite to Public. This can be done through Windows Firewall or through whatever Firewall you are using.

## *2.4. Voyager M310C/M310P and Mercury T2C/T2P Specific Setup Notes*

The Type-C connectors on the front should ideally be connected as follows:

Connector 1 (left connector) should preferably be connected to the Device (which normally has a UFP)

Connector 2 (right connector) should preferably be connected to the Host (which normally has a DFP)

It will still work if they are connected the other way, but the above method will make the traffic in the traces appear more similar to traffic captured on non- Type-C analyzers, so it can be less confusing to those who have used CATC/LeCroy analyzers over the years.

For more information on Voyager M310C/M310P setup, see the USB Protocol Suite User Manual. For Mercury T2C/T2P, see the appropriate Mercury Quick Start Guide included with your installation.

**NOTE: Analysis of USB SS+ (10Gbps Gen 2) traffic requires the use of short, low-loss, high quality cables. The cables provided by Teledyne LeCroy, which have the Teledyne LeCroy label on them, have been verified to provide excellent signal quality. Using other cables may compromise the signal quality and prevent capturing of clean traffic.**

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## ***2.5. Voyager M310C/M310P Power Delivery Exerciser Warning !***

**Warning: The Voyager M310C/M310P Power Delivery Exercisers allow the customer to set Voltages and Current levels to be delivered to/from Devices and Hosts and their connecting cables which may exceed their capabilities.**

- **This may cause damage to the devices under test and their cables. Please use caution when writing scripts so that these limitations are not exceeded.**
- **Please Power-cycle the M310C/M310P unit after PD usage to insure that the connectors go back to their default Voltage and Current states.**

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## 3. Release Notes

### 3.1. What's New

- This is version 7.70 of the USB Protocol Suite.
- New Features
  - Bug Fixes
  - Thunderbolt 3 Low Speed SBU Capture and Decoding
  - Vconn Pass-Through mode added for M310P Analyzer Mode
- This release supports the following Teledyne LeCroy products (See Section 1.2):
  - Voyagers: M3i, M3x, M310, M310C, M310P
  - Advisor T3
  - Mercury T2, T2C, T2P
- This release supports the following specifications:
  - USB 3.2 Specification Version 1.0 of September 22, 2017
  - USB 2.0 Specification up to ECN of July 16, 2007
  - USB Power Delivery Specification Revision 2.0 V1.3 January 12, 2017
  - USB Power Delivery Specification Revision 3.0 Version 1.173 December 19, 2017 (Working draft)
  - USB Type-C Cable and Connector Specification Revision 1.3 July 14, 2017
- This release includes Bug Fixes and Enhancements for the following issues:

Issue key	Summary
USBPS-18948	USBSuite crashes when scrolling TBT3 LS Traffic
USBPS-18944	VPD device unable to connect with build 7.67 Beta; Prior version 7.66_b2723 is fine.
USBPS-18938	Crash when running Ch.7/Ch.10 SSP Compliance tests on repeat
USBPS-18930	Improve decoding of BmaxPower
USBPS-18928	Improve behavior of Vconn, allow pass-through
USBPS-18927	Raw Packet View for LS Thunderbolt 3
USBPS-18925	M310P: Implement Vconn Pass Through on Analyzer Port
USBPS-18924	Crash when using Mercury T2C and M3i
USBPS-18922	Possible issue Truncating AT packets
USBPS-18921	Crash on upload - Analyzer capture between USB Type-C Monitor
USBPS-18919	Gen2 SS+ Collapse for Training (TS1, TS2) should not consider DC Balance
USBPS-18917	M310P LFPS U1Exit measurement variation
USBPS-18915	Communications with Cable should have a better Field Cell than "Port" "???"
USBPS-18912	[M3x New Kontron] Automation failure error happen when running Link Layer Test
USBPS-18907	TD.PD.SRC3.E36 - Invalid FAIL due to incorrect decoding of Country Code Field
USBPS-18906	Document update for Device/Host Signal Parameters
USBPS-18902	Generation is done but a lot of packets are missed in the trace. Happened only in Gen2!
USBPS-18895	Exerciser crash after modifying include statements

USBPS-18891	Sw couldn't upload captured trace if using ethernet connection with M3x/M310P [kontron]
USBPS-18890	USB Suite Crashes when doing Hub Compliance with Raw files enabled
USBPS-18888	M310P Missing last byte of Display Port Write occasionally
USBPS-18881	Low Speed TBT3 Capture and Decode on Mercury T2P - Software
USBPS-18880	Low Speed TBT3 Capture on Mercury T2P - Bus Engine Portion
USBPS-18879	SBU Display Port Capture issue on DellXPS and HP Spectre (Merc T2P)
USBPS-18878	Bug in Trace View Navigation
USBPS-18875	Need Isocch Xfer Exerciser Scripts (Out & In) to xfer at 786MB/s
USBPS-18873	Need to report USB 2.0 Termination Change Events (none, LS, FS, HS) as well as original state (Like USB 3.0)
USBPS-18870	Decoding Error for Authentication Digest handshake
USBPS-18854	Protocol Suite crash while running compliance test (TD.4.10.3)
USBPS-18845	Collapse TS1A/B and SKP's the same way as TS1's
USBPS-18811	Update Decoding for Type-C Bridge Spec
USBPS-18809	Display Port - Decoding Configuration Data specified by different Addresses.
USBPS-18792	USB 3.0 Electrical Test "Send Ping" command is sending double pings
USBPS-18774	Trace file(s) already exist warning issues
USBPS-18752	Incorrectly showing Bit Stuff error
USBPS-18705	Keep Alive packets being decoded incorrectly on M310C
USBPS-18694	SW triggers on USB 2 errors, but no errors in trace and in error report
USBPS-18632	USB 2.0 Traffic Generator EXT/LPM commands not working
USBPS-18615	GET_STATUS can't trigger with wIndex set to non zero
USBPS-18592	[Exerciser] Warm Reset sent after Vbus is turned on
USBPS-18590	USB2 Host emulation export syntax error on LPM commands
USBPS-14625	Raw Bits view: SYNC and EOP incorrect for HS SOF packet

### 3.2. Known Issues

Bug ID	Summary
<a href="#">USBPS-18687</a>	50% of the time you will need to flip connector on Exerciser port when in 3.0 Manual Term/Term detect mode

#### General

- Voyager may not work correctly if connected over Ethernet and USB at the same time. Please use only one type of interface.
- Errors may appear in the last couple of packets of a recording which are not real errors. They are a side effect of the recording terminated during the middle of a packet. Also, the first packet in a trace may be a partial one.
- In USB 2.0 Auto Speed Detect mode, the first few (up to ~20) packets may have errors on a high speed trace due to bouncing of the speed selection relay. These packets should be ignored.

- The External Trigger Out signal level is forced low at the beginning of each recording. This might cause false triggers on externally attached equipment.
- M3/M3i: For USB 3.1 SS traffic capture, in some cases the analyzer might not correctly lock to the 5Gbps signals on power up, or it may lose lock after a long period of usage. If this occurs, you may issue a soft reset to the capture engine by selecting “Record | Reset SuperSpeed Capture Engine” from the menu. After performing this reset, you will have to retrain the link on your devices.
- The “Auto RxDetect” mode is designed to recognize 3.1 hosts and devices and present 3.1 terminations to them when they are both plugged in. In some cases, the timing is such that the Host and Device go into USB 2.0 mode, or don’t connect. If this occurs, try doing a Disconnect/Reconnect cycle of VBus by hitting the “Momentary Disconnect” button on the toolbar. In other cases, you will have to disable then re-enable the xHCI Host controller driver in the Windows 7 Device Manager of your PDK.
- Some hiding options stored in old display options files are stored incorrectly and cannot be restored.

### 3.3. API

#### Automation:

- There are several sample projects included with the application. To run them, you should make sure that the USB Protocol Suite application is already installed.
- The library file name to be used is: **USBAutomation.tlb**.
- **HTML Sample:**
- For editing the HTML sample code you can use a text editor or other HTML-editing tools.
- **CPP sample:**
  1. To compile the Visual C++ sample project you first need to install the Microsoft Visual Studio.
  2. You can select to install the USB Protocol Suite software in a directory different than the default one. If you choose to do so, make sure you add a path to the installation directory in your project’s paths list. You can find the **USBAutomation.tlb** file in the installation directory. When using Microsoft Visual Studio, the path to the installation directory should be added to the following places in the ‘Project Settings’ property sheet:
    - (1) Under ‘C/C++’ tab, ‘Preprocessor’ category in the ‘Additional include directories’.
    - (2) Under ‘Resources’ tab, in the ‘Additional resource include directories’.
- When a remote server is disconnected abruptly while a client application is still connected, the client application might hang up for several minutes. At the end of this timeout, the client would be released with a “The RPC server unavailable” notification. This is due to Windows conduct. [C0004997]

**Note on VSE scripts which use the methods to access Address and Endpoint fields** (GetAddr(), GetEndp(), variables Addr and Endp): a bug was returning these values in their lsb->msb order for 3.1 traffic, and in normal msb->lsb order for 2.0 traffic. This has been fixed in 4.60 release so that the 3.1 values are now in the same format as USB 2.0 values, msb->lsb. You may have to update your scripts if they depended on this bug.

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## 4. Previous Releases Release Notes

### 4.1. Version 7.65 Build 2703 (May 24, 2018)

- This is version 7.65 of the USB Protocol Suite.

- New Features
  - Bug Fixes
  - Mercury T2P Support
  - Enhanced Eye Viewer
  
- This release supports the following Teledyne LeCroy products (See Section 1.2):
  - Voyagers: M3i, M3x, M310, M310C, M310P
  - Advisor T3
  - Mercury T2, T2C, T2P
  
- This release supports the following specifications:
  - USB 3.2 Specification Version 1.0 of September 22, 2017
  - USB 2.0 Specification up to ECN of July 16, 2007
  - USB Power Delivery Specification Revision 2.0 V1.3 January 12, 2017
  - USB Power Delivery Specification Revision 3.0 Version 1.173 December 19, 2017 (Working draft)
  - USB Type-C Cable and Connector Specification Revision 1.3 July 14, 2017
  
- This release includes Bug Fixes and Enhancements for the following issues:

Issue key	Summary
USBCOMP-19144	As per Spec, DC Balance symbols in SSP TSEQ, TS1 and TS2 should not be scrambled.
USBCOMP-19139	USB2 device cannot be enumerated- no USB2 traffic
USBCOMP-19132	10.115 TD 10.118 - Inconsistent passing and failing - M310C
USBPS-18889	Remove support for very old Trace Files
USBPS-18879	Display Port Capture issue
USBPS-18871	Crash when scrolling PD Authentication Trace
USBPS-18868	Compliance: 7.01.2 BE Not handshakeing TS1 in the Polling.Active state
USBPS-18863	Missing M310P value for GetHardwareInfo API in automation manual
USBPS-18862	Missing Capturing U1 LFPS Exit (effects all 3.x analyzers)
USBPS-18858	M310P exerciser port status in Device Status Details Windows not showing correctly
USBPS-18851	Exerciser should not transition to TS2 after receiving TS1As (Currently treated like TS1). Effects TD's 7.36, 7.19
USBPS-18844	Document update for Drop Compensation Button

USBPS-18842	Software crash when Raw File enabled
USBPS-18838	CC Power Tracker colors should be different
USBPS-18836	Simplify "Fit all Power Info to Graph Area"
USBPS-18835	Improve DAC calibration accuracy and fix packet acquisition during Apple Noise
USBPS-18832	Add TimeStamp and Amount of Trace Buffer Used during Recording to Trace Info
USBPS-18827	Type-C does not trigger when cable orientation is flipped and there is no Rp/Rd on CC1
USBPS-18826	The decoding of the Country Codes appears backwards
USBPS-18821	Type-C event SinkTxOk is not shown in trace when it is the last packet
USBPS-18819	Min and Max values shown are not correct in VBus power tracker before resizing the graph
USBPS-18818	DAC Calibration hangs on M310P rev 16
USBPS-18808	DisplayPort - Adding Transaction/Transfer layer for chunked Read and Write commands.
USBPS-18806	Add support for "PPS Current Requirements above Nominal Prog Voltage" ECN
USBPS-18805	DP AUX unknown message
USBPS-18791	Need Auto-Calibration of DAC output
USBPS-18784	Add ability to export data via the API
USBPS-18778	SW always hang at 99% uploading whenever capture big buffer size of USB 2 traffic with Ethernet connection
USBPS-18771	M310C Signal Parameters GUI not working reliably
USBPS-18763	Make sure square wave amplitude is correct for TDA 1.1.2.1.1. TDA 2.1.2.1
USBPS-18759	Add dV/dt calculation to Power Tracker time markers
USBPS-18758	Crash when using M3i
USBPS-18747	USB Suite crashed on uploading under CrossSync
USBPS-18735	Add Vconn Power tab to Power Tracker
USBPS-18734	Power Tracker view enhancements (easier to see old bad traces, etc.)
USBPS-18730	Eye Diagram Improvement
USBPS-18702	Loopback function of M310C not worked for 16K buffer
USBPS-18623	Wrong tooltip for Chirps stack
USBPS-18609	API - add ability to click 'Do not save hidden packets...' button when saving

## 4.2. Version 7.62 Build 2618 (February 7, 2018)

- New Features
  - Bug Fixes
  - **Compatibility fixes for Voyager M310P**
- This release supports the following Teledyne LeCroy products:
  - Voyagers: M3i, M3x, M310, M310C, M310P
  - Advisor T3
  - Mercury T2, T2C
  - **Note: Tested only on Voyager M310P**
- This release supports the following specifications:
  - USB 3.2 Specification Version 1.0 of September 22, 2017
  - USB 2.0 Specification up to ECN of July 16, 2007
  - USB Power Delivery Specification Revision 2.0 V1.3 January 12, 2017
  - USB Power Delivery Specification Revision 3.0 Version 1.171 June 5, 2017
  - USB Type-C Cable and Connector Specification Revision 1.3 July 14, 2017
- This release includes Bug Fixes and Enhancements for the following issues:

Issue key	Summary
USBCOMP-19018	TDA 2.1.1.1 - not recognizing DUT BIST message
USBCOMP-18959	TDA 2.2.6 - incorrectly measuring GoodCRC timing?
USBPS-18786	Drop Compensation Button in PowerTracker Tool Bar (for Load Tests)
USBPS-18702	Loopback function not worked for 16K buffer
USBCOMP-18996	TDA.1.1.2.2.1 (also TDA.1.1.2.2.2?): Trace doesn't show any valid BIST messages in Group 3 result
USBPS 18791	DAC auto-calibration added in Compliance & USB Suite
USBCOMP-18978	PD.SRC3.E1 ECR states Bit 27 no-longer reserved
USBPS-18730	Partial: Show X-Y Margins in Eye Diagram, and Show PDEyeDiagram by using the voltage offset of Mask that passed the compliance test.

## 4.3. Version 7.60 Build 2597 (December 21, 2017)

- New Features
  - Bug Fixes
  - Capture and Decoding of SBU Display Port sideband protocol on M310P
- This release supports the following Teledyne LeCroy products:
  - Voyagers: M3i, M3x, M310, M310C, M310P
  - Advisor T3
  - Mercury T2, T2C
- This release supports the following specifications:
  - USB 3.2 Specification Version 1.0 of September 22, 2017
  - USB 2.0 Specification up to ECN of July 16, 2007
  - USB Power Delivery Specification Revision 2.0 V1.3 January 12, 2017

- USB Power Delivery Specification Revision 3.0 Version 1.171 June 5, 2017
- USB Type-C Cable and Connector Specification Revision 1.3 July 14, 2017

- This release includes Bug Fixes and Enhancements for the following issues:

Issue key	Summary
USBCOMP-18969	25ns LFPS Period support added for SS+
USBCOMP-18920	TS1 Filter out Issue Fixed
USBPS-18796	USB Protocol Suite cannot install
USBPS-18790	Software crashed occasionally
USBPS-18788	Trigger on Polling.LFPS after U3Exit not working
USBPS-18783	Zoom control and filtering to make Power Tracker look better
USBPS-18781	M310P: 5V not seen on Right Analyzer Connector CC when Vconn enabled on it
USBPS-18780	M310P, M310C, M310, M3x quick start tabs in browser shown as M3i
USBPS-18773	[M310P] Not capturing CC events on right connector
USBPS-18772	Incorrect decoding of TS1As and TS1Bs
USBPS-18771	M310C Signal Parameters GUI not working reliably
USBPS-18768	Exerciser not beginning PD preamble correctly
USBPS-18761	Changing from Square wave noise to Apple noise for tests TDA 1.1.2.1.1 ,TDA 1.1.2.1.2,TDA 1.1.2.2.1,TDA 1.1.2.2.2
USBPS-18760	Compliance: False fails on M310P for TD's 7.09,7.13,7.14,7.15,7.30 (LinkTurnaround 900ns in BE)
USBPS-18757	Type C Bridge Decoding issue
USBPS-18754	Regression testing for device connection via USB / Ethernet
USBPS-18753	EEM decode issue
USBPS-18751	USB Protocol Suite crash when using USB Compliance Suite
USBPS-18750	Crash while opening Exerciser scripts
USBPS-18749	M310P Hard Reset Direction not shown
USBPS-18745	Incorrectly displaying Right and Left side PD traffic
USBPS-18743	Crash when removing marker from Markers Dialog
USBPS-18741	Saving as Binary/Hex in Raw Data View not working correctly
USBPS-18739	M310C vs M310P Vbus current measurements
USBPS-18738	Crash during Exerciser operation
USBPS-18731	PD3 TD PD.SNK3.E06 - incorrect Status message data size sent by Exerciser
USBPS-18729	Add connection between PD Exerciser and Trace capture to determine ownership of items such as Hard Reset
USBPS-18723	Power Tracker refers to Left and Right for Exerciser captures

USBPS-18718	Cutting down time to show CC transitions during PD traffic
USBPS-18716	False SS+ CRC-32 Triggers on M310C
USBPS-18713	Add Vbus calibration to M310P
USBPS-18693	Remove SSIC and X34 from visibility in USB Suite
USBPS-18691	SW crash when try to send email in RTS
USBPS-18688	M310P Enumerates and shows in Windows Device Manager as M310C due to Signing issue
USBPS-18681	The words "This is a Discarded Packet" removed from warning message of Deferred/Delayed packets.
USBPS-18676	Support latest PD3 updates (v 1.2) in USBSuite software
USBPS-18671	M310P SW and BE support of DP Protocol on SBU packet captures
USBPS-18669	TD.10.120 Sending SCD1 instead of U2_Exit_LFPS causing invalid FAIL
USBPS-18652	(FR) Add decoding for both old and new TS1A & TS1B
USBPS-18607	[PD Exerciser] Both the source and sink have a DFP data role?
USBPS-12655	In LTSSM transition to U2 software should take care that Transition is really happened

#### *4.4. Version 7.55 Build 2552 (September 21, 2017)*

- This is version 7.55 of the USB Protocol Suite.
- New Features
  - M310P: Support for all PD 2.0, 3.0, and Type-C Compliance Tests
  - PD Transmission Eye Viewer
  - M310P: Support for 4-lane Display Port transmission (Passive tapping)
  - Bug Fixes
- This release supports the following Teledyne LeCroy products:
  - Voyagers: M3i, M3x, M310, M310C, M310P
  - Advisor T3
  - Mercury T2, T2C
- This release supports the following specifications:
  - USB 3.1 Specification Version 1.0 of July 26, 2013 (Including all ECN's through August, 2014)
  - SuperSpeed Inter-Chip Spec 1.01 February 11, 2013
  - USB 2.0 Specification up to ECN of July 16, 2007
  - USB Power Delivery Specification Revision 2.0 V1.3 January 12, 2017
  - USB Power Delivery Specification Revision 3.0 Version 1.171 June 5, 2017
  - USB Type-C Cable and Connector Specification Revision 1.3 July 14, 2017
- This release includes Bug Fixes and Enhancements for the following issues:

<b>Issue key</b>	<b>Summary</b>
USBPS-18699	LFPS Delimiter not decoded correctly
USBPS-18697	Error opening Cable Set Doc

USBPS-18685	Detecting False FRS during Power Role Swap
USBPS-18679	Different background colors on CC packets
USBPS-18673	USB Audio Class: Decoding description incorrect
USBPS-18668	LFPS Trigger Issue
USBPS-18667	TD.10.119 SS+ HUB fails because GetUSB3XferEndTime function returns wrong time value
USBPS-18666	Enhance Bridge class decode by showing Transfer length in bytes when decoded
USBPS-18665	Unable to determine which side traffic is coming from
USBPS-18664	[USB3 Sequencer] Specified actions are applied on opposite channel in Type-C products
USBPS-18663	Send LCRD2 after deferred packet
USBPS-18662	Add icon to eye Diagram Report entry in the menu
USBPS-18660	Voyager M310C does not send LGO_U1 in SS+ mode during TD.10.118 part C7
USBPS-18658	Updated decoding for downstream hub ports entering Compliance Mode
USBPS-18657	Unusual NAK'd data packets
USBPS-18650	Add decoding support for APDO and PPS
USBPS-18649	In Exerciser Mode, we should display Vbus OFF/ON at 4.75 V. In Analyzer Mode the threshold should continue to be 4.0 V
USBPS-18648	Crash during decoding of Authentication class traffic
USBPS-18647	USB Type-C Bridge Decoder Fixes needed
USBPS-18646	Issues with displaying correct Left/Right after a PR Swap
USBPS-18645	Vbus Events should match times in Power Tracker
USBPS-18643	Uploading issues on the Advisor T3
USBPS-18641	Add Example PD script for emulating Display Port Adapter (all configurations)
USBPS-18636	Characters typed into Marker Search dialog not working
USBPS-18634	[PD 3 Exerciser] Incorrectly sending Not Supported messages
USBPS-18631	Merc T2C not reporting record stop correctly
USBPS-18629	Filter Out Transaction Not Working for USB 2.0
USBPS-18628	Phantom Trigger in Mercury T2C
USBPS-18614	[Documentation] Recording Rules - USB 2.0
USBPS-18608	Trainer/Exerciser Shown in Operation Mode for Mercury
USBPS-18601	Slew Rate Fixes Required
USBPS-18597	Sw crash after disconnecting analyzer when wait for it to complete warning message appear
USBPS-18592	Warm Reset behavior modification register address change
USBPS-18588	Incorrect RNDIS decoding
USBPS-18584	Edit Box borders in Raw View and Data View need to be darker
USBPS-18566	USB Suite 7.40 crashed under CrossSync
USBPS-18562	Add ability to hide USB 2.0 RESET bus condition
USBPS-18557	USB application crashed during data uploading in CrossSync configuration
USBPS-18543	Allow Vbus without CC-Pin Termination look truncated.
USBPS-18515	Glitch on timing calculator tab in .utg file
USBPS-18511	RTS reading will resume while no graph get plotted after re-connect the analyzer

USBPS-18457	(FR) Add Waveform acquisition and display infrastructure to M310P
USBPS-18428	Automation client connected message pop up when closing the suite after open it twice
USBPS-18399	Allow user to choose transfer grouping method
USBPS-18293	Discrepant Time Stamp in Manual Trigger
USBPS-18237	All channels are available to search although trace only consist up to channel 1 only.
USBPS-18172	Sw could not being used after not enough memory to open trace file
USBPS-18156	Exerciser can not run more than once with Graphic scenario script
USBPS-18151	Internal error message when running graphic scenario for huge loop count
USBPS-18139	User need to save first the new created script to open the %include file
USBPS-18108	Toolbar button become disarranged after change the icon from large to default
USBPS-17827	Analyzer failed to reconnect after USB Suite was closed and relaunch through USB Compliance suite.
USBPS-17481	Marking aborted packet as error
USBPS-17082	Flushing mechanism fixed to ensure proper timestamp ordering
USBPS-16280	Docking views title doesn't update properly in floating mode
USBPS-14862	RTS automatically resume running after reconnect USB connection
USBPS-10377	Add a marker search in the search menu
USBPS-8490	Recording Option or Warning enhancement for Overwriting a trace

#### *4.5. Version 7.45 Build 2390 (March 24, 2017)*

- This is version 7.45 of the USB Protocol Suite.
- New Features
  - Enhanced Dockable Raw Data View for PD and USB 2.0 Traffic
  - Delta timing on Current and Voltage in PowerTracker
  - Trigger on 3.1 Timeouts
  - Search for Hub Requests
  - Type-C Bridge Decoder
  - Exerciser Loopback feature on M3x, M310, and M310C
  - Bug Fixes
- This release supports the following Teledyne LeCroy products:
  - Eclipse X34
  - Voyagers: M3i, M3x, M310, M310C
  - Advisor T3
  - Mercury T2, T2C
- This release supports the following specifications:
  - USB 3.1 Specification Version 1.0 of July 26, 2013 (Including all ECN's through August, 2014)
  - SuperSpeed Inter-Chip Spec 1.01 February 11, 2013
  - USB 2.0 Specification up to ECN of July 16, 2007
  - USB Power Delivery Specification Revision 2.0 V1.2 March 25, 2016
  - USB Power Delivery Specification Revision 3.0 V1.0a March 25, 2016
  - USB Type-C Cable and Connector Specification Revision 1.2 March 25, 2016

- This release includes Bug Fixes and Enhancements for the following issues:

<b>Issue key</b>	<b>Summary</b>
USBCOMP-18653	Compliance errors due to VSE data access bug
USBPS-18625	Missing Triggers in Mercury T2C traces
USBPS-18619	Export to .CSV issue when run from API
USBPS-18598	Clarify use of Automation API being limited to controlling one instance of one product.
USBPS-18595	Explain M310C Host and Device connector assignments more clearly
USBPS-18591	Slow menu display animation
USBPS-18587	USBPD Function - Call to PD_SetSwapDataRole_Setting is not available
USBPS-18586	USB 2.0 Trainer scripts not compiling when empty_frames is a large value (out of Gen memory)
USBPS-18582	LFPSDutyCycle parameter issues
USBPS-18567	Cannot see Mercury T2, Mercury T2C and Advisor T2 with USB suite if Firmware not programmed
USBPS-18565	TCP Server compiled version responds with PETracer not USB
USBPS-18564	Display discrepancy between Spec View and Link Tracker
USBPS-18563	Error/Crash when using CORRUPT_SLC_FRAMING command
USBPS-18561	Add HID Example that decodes Keystrokes in ASCII
USBPS-18555	SW crash after did device updating
USBPS-18554	Incomprehensible error message user does not know what action to take
USBPS-18553	Extended messages trigger list overlaps with CC simple trigger in Win 7 JPN & KOR
USBPS-18551	The legend is reversed under USB3.1 Link State Timing View
USBPS-18550	Document that VBUS voltage can appear as negative when source is on Right connector.
USBPS-18549	Switch to event mode prompt not occurring when Vbus value triggers enabled
USBPS-18548	Add Power Triggers to Recording Options Summary tab
USBPS-18547	The CC Simple triggers tab couldn't be switch over in Trace Info RO dialog
USBPS-18546	SW hangs when try to search hidden item
USBPS-18542	Add PD Event in Traffic Summary, and search and find feature
USBPS-18538	CLONE - Detecting CC transition due to PD (Part 2: increased A/D frequency)
USBPS-18537	PD Exerciser memory overflow. No Auto-Response for 3 PD Message Types.
USBPS-18535	Update PD Exerciser Manual
USBPS-18531	SCSI level status decoding error
USBPS-18530	Compliance: SUBLINK_SPEED packet isn't being sent during SetAddress when the exerciser connects in Gen2
USBPS-18527	Add Fast Role Swap to Exerciser
USBPS-18522	Warn the user if he changes Transfer Types in Decoder dialog
USBPS-18521	Drag in many markers to the playlist will only inserted one
USBPS-18520	Can't edit Manage Playlist with SHIFT + [M,N, I ,etc.]

USBPS-18516	Add Left/Right fields to USB 3.1 Transactions and Transfers
USBPS-18510	Audio Device Class 3.0
USBPS-18507	Add ability to search for Hub Requests
USBPS-18505	After doing tests on Type-C, if you want to do USB link layer test, you need to power cycle your M310C
USBPS-18485	Exerciser responding to Source Cap with late GoodCRC
USBPS-18481	USB Type-C Bridge Class Decoder
USBPS-18476	Separate U0 IPS vs non-U0 IPS (Now called USS: Unidentified Symbol Sequence)
USBPS-18461	SW will hang at 99% uploading while link tracker with collapse idle are enabled
USBPS-18423	Firmware Update PD Class Decode
USBPS-18415	Enhanced Dockable (non-modal) Data View for PD and USB 2.0 Traffic
USBPS-18393	CRC Triggering inconsistency in 2.0
USBPS-18265	Recording will prematurely stopped with large buffer size capturing.
USBPS-18146	The Unhide hidden item dialog box is not automatically brought in front of searching forward progress bar
USBPS-18058	Display power deltas in Power Tracker
USBPS-17920	Unable to enter "capital M" in marker EDIT widow?
USBPS-17717	Trigger on Timeouts in 3.1
USBPS-17082	Re-design USB 2.0 BE data path so that Auto-Flushing can work properly: AT3, M3x, M310, M310C, MercT2C
USBPS-15914	No trigger happens when set trigger on SPLIT for M310 and M3x - USB 2.0
USBPS-15634	DP intermittently not decoded - IPS's where DPP should be
USBPS-14632	SS transfers are split at NRDY
USBPS-10858	Exerciser Loopback in Host and Device modes (M3x, M310, M310C only)
USBPS-8660	Display elapsed time for spooled mode recording.
USBPS-8490	Protect overwriting files.
USBPS-7515	FR: search multi field markers in single packet
USBPS-5176	USB2.0 & USB3.0 traffic not align with time stamp for SS Hub
USBPS-4615	Enhancement - Customer would like to be able to set the format of Idle time field and Bus Condition field

#### *4.6. Version 7.40 Build 2326 (November 11, 2016)*

- This is version 7.40 of the USB Protocol Suite.
- New Features
  - Trigger on Power Values
  - Capture PD Fast Role Swap
  - PD and USB Authentication Class Decoder
  - User Decoding Script Support for PD VDM's
  - Bug Fixes
- This release supports the following Teledyne LeCroy products:
  - Eclipse X34
  - Voyagers: M3i, M3x, M310, M310C
  - Advisor T3

- Mercury T2, T2C
- This release supports the following specifications:
  - USB 3.1 Specification Version 1.0 of July 26, 2013 (Including all ECN's through August, 2014)
  - SuperSpeed Inter-Chip Spec 1.01 February 11, 2013
  - USB 2.0 Specification up to ECN of July 16, 2007
  - USB Power Delivery Specification Revision 2.0 V1.2 March 25, 2016
  - USB Power Delivery Specification Revision 3.0 V1.0a March 25, 2016
  - USB Type-C Cable and Connector Specification Revision 1.2 March 25, 2016
- This release includes Bug Fixes and Enhancements for the following issues:

Issue Number	Summary
USBPS-18525	USB PD3.0 Get_Battery_Cap Message
USBPS-18523	USB PD 3.0 Extended Message Header
USBPS-18512	Detecting CC transition due to PD (TD 4.5.4) (was USBCOMP-18502)
USBPS-18509	Enable Linux Remote Control via c# Client Server Example
USBPS-18504	Bus utilization graph changes the scale when changing the Protocol Suite screen size
USBPS-18502	LabView Automation Call Failures
USBPS-18501	Dragged USB Protocol Suite operation
USBPS-18500	Add Left/Right fields to PD Transactions and Transfers
USBPS-18495	Section 2.7.1 of USB automation manual does not list newer hardware values
USBPS-18491	Warm Reset being interrupted by Rx.Detect
USBPS-18490	Update M310C QuickStart Guide re: Host & Device ports
USBPS-18488	SSIC - Remove Auto and Triggered DFE Selections (Keep internal numbering in SW)
USBPS-18487	Software crashes when put quick markers on USB 2.0 generation files
USBPS-18486	Triggering on Event when in Manual Trigger mode
USBPS-18483	Broken 256-bit PD blocks for Mercury T2C
USBPS-18480	Sw crash when open trace that converted from very old version
USBPS-18479	Update Decode list in USB Suite Manual
USBPS-18478	"Code 5" error on previously recorded trace
USBPS-18477	PD 3.0 Reserved Field Warning
USBPS-18475	Unable to debug "Unknown" packet from USB Suite
USBPS-18474	Compliance TD 7.07: HP reset before LRTY
USBPS-18473	Support new Usb Type-C states in Spec release 1.2
USBPS-18471	USB Automation API call - ExportToCsv, Support Export Transactions With Packets
USBPS-18469	ITP packets are not filtered out in M310C
USBPS-18467	Fail to trigger if the standard request event was set through event properties
USBPS-18466	Device alias name length in USBCompliance and USBSuite Recording options does not match

USBPS-18459	Remove channel selection from Trig In event
USBPS-18458	Recording Options not reflected properly in trace
USBPS-18454	Allow Alias cell to be hidden from CC Events
USBPS-18448	Spec View when fields span dwords
USBPS-18446	Add Fast Role Swap request detection in Bus Engine & SW
USBPS-18442	Allow Power Tracker samples to be exported as CSV
USBPS-18422	PD and USB Authentication Class Decoder
USBPS-18407	Allow Vconn to be enabled before connecting device
USBPS-18401	Add Collape/Expand header to SVDM packets
USBPS-18398	Provide range-checking for recording buffer size maximums
USBPS-18375	Generation Scripts: Try again if Wait received
USBPS-18167	Stop Exerciser Button not working in specific scenario (BulkOnly_scsi_cmd1)
USBPS-18149	SW crash when Ethernet-connected analyzer powered off while RO page open
USBPS-18138	SW crash after try to save the modified .utg file
USBPS-17853	AT3 is automatically triggered when set trigger event on External SMA/BNC Trig In (Global)
USBPS-17750	Traffic Summary Report shows 0 value for Rejected LGO at Transaction Level
USBPS-17722	Stop Command does not reset Exerciser
USBPS-17145	M310C/M310/M3x: Host emulation producing blank trace Happens when Concurrent Uploading and Exerciser Script running.
USBPS-16982	M3x is automatically triggered when connected to AT3 for External Trigger In
USBPS-16917	Trigger on Power Measurements
USBPS-16905	Not able to do search for PHY transactions
USBPS-16742	M3i, M3x, M310, M310C Unable to stop exerciser when stuck in loop
USBPS-16525	PD: Add User Decoding Script Support for structured and unstructured VDM's
USBPS-14882	No information in Rx link tracker in SSP trace
USBPS-14861	SW freeze after disconnect Ethernet while RTS is running.
USBPS-14744	Some of file format for picture are not supported in CATC Walk
USBPS-4878	When toolbar icons are greyed the tool tip should be updated to say non in trace too
USBPS-3591	detect transitions from Recovery State to SS.Inactive State and displayed at LTSSM view

#### *4.7. Version 7.35 Build 2274 (July 1, 2016)*

- This is version 7.35 of the USB Protocol Suite.
- New Features
  - Power Delivery 3.0 Support
  - Type-C Compliance enhancements
  - Bug Fixes
- This release supports the following Teledyne LeCroy products:
  - Eclipse X34
  - Voyagers: M3i, M3x, M310, M310C
  - Advisor T3
  - Mercury T2, T2C

- This release supports the following specifications:
  - USB 3.1 Specification Version 1.0 of July 26, 2013 (Including all ECN's through August, 2014)
  - SuperSpeed Inter-Chip Spec 1.01 February 11, 2013
  - USB 2.0 Specification up to ECN of July 16, 2007
  - USB Power Delivery Specification Revision 2.0 V1.2 March 25, 2016
  - USB Power Delivery Specification Revision 3.0 V1.0a March 25, 2016
  - USB Type-C Cable and Connector Specification Revision 1.2 March 25, 2016
  
- This release includes Bug Fixes and Enhancements for the following issues:

Issue #	Description
<a href="#">USBPS-18424</a>	USB Protocol Suite fails to detect Rp during Type C Compliance TD 4.5.1
<a href="#">USBPS-18413</a>	Vconn displayed as Rp in trace
<a href="#">USBPS-18412</a>	Type-C events out of order
<a href="#">USBPS-18411</a>	Open Find with Ctrl+F
<a href="#">USBPS-18410</a>	SCSI: Performance issues with large MODE SENSE operation
<a href="#">USBPS-18409</a>	Analyzer does not recognize roles correctly during PR Swap
<a href="#">USBPS-18407</a>	Allow Vconn to be enabled before connecting device
<a href="#">USBPS-18404</a>	Cabling error message
<a href="#">USBPS-18403</a>	M3x Boot File/Firmware/ Download Failure In Occasional Cases
<a href="#">USBPS-18402</a>	Vbus events are from incorrect source
<a href="#">USBPS-18400</a>	A device should detect 4.0+ V as Vbus
<a href="#">USBPS-18398</a>	Provide accurate buffer size maximums
<a href="#">USBPS-18397</a>	Type-C termination with Vconn pass-through cable
<a href="#">USBPS-18376</a>	Improve raw hex display
<a href="#">USBPS-18374</a>	Allow CC termination to be reset
<a href="#">USBPS-18363</a>	Compliance: Not detecting AudioAccessory
<a href="#">USBPS-18357</a>	Exerciser does not perform PR_Swap correctly
<a href="#">USBPS-18352</a>	Sending Source Caps too frequently
<a href="#">USBPS-18350</a>	tCCDebounce
<a href="#">USBPS-18313</a>	SSIC: Integrate all appropriate UniPort BE fixes to SSIC BE: Auto-Speed, Fixed Speed capture fixes, lock improvements, etc
<a href="#">USBPS-18312</a>	Add all CC and PD trigger causes to the trigger cause registers for use in Trace Information dialog
<a href="#">USBPS-18305</a>	SS+ Link Tracker's slider bar problem
<a href="#">USBPS-18281</a>	Crash message appear for USB suite during USB3 compliance test
<a href="#">USBPS-18278</a>	Triggering for CC event is not occurred on exerciser mode
<a href="#">USBPS-18261</a>	Remove Slow and Very Slow clock features
<a href="#">USBPS-18260</a>	Add Allow VBUS without CC-Pin Termination information into RO Summary Tab
<a href="#">USBPS-18259</a>	Slider bar for trace view unmoved when go to trigger packet

<a href="#">USBPS-18254</a>	SW crash when doing partial uploading
<a href="#">USBPS-18239</a>	Warning message when switching from simple to advanced mode is confusing
<a href="#">USBPS-18233</a>	Need to enhance PD/CC exerciser for PD/CC compliance support
<a href="#">USBPS-18232</a>	Further enhancements to support CC analyzer for compliance
<a href="#">USBPS-18227</a>	Not handling Deferred packets correctly
<a href="#">USBPS-18226</a>	CATC Sync serial numbers incorrect
<a href="#">USBPS-18218</a>	SW did not refresh the trace in spreadsheet after unfiltering
<a href="#">USBPS-18210</a>	Add Timestamp, Address, and Endpoint to headers of Data Export.
<a href="#">USBPS-18202</a>	Go To Min Value will not jump to the desired region if the value is 0
<a href="#">USBPS-18201</a>	Graph grid in power tracker will grayed-out when capturing traffic using M3x
<a href="#">USBPS-18189</a>	Power Tracker anchor marker not appearing consistently
<a href="#">USBPS-18160</a>	SW triggered at wrong packet when try to trigger SCSI CDB Access Control Out
<a href="#">USBPS-18158</a>	SW silently add Filter-Out LSLC event in Rec Rules when enabled simple filter out LUP/LDN
<a href="#">USBPS-18145</a>	Support Try.SRC (and Try.SNK) in USB Suite and Compliance
<a href="#">USBPS-18132</a>	USB Compliance - Strange behavior in PD Compliance trace
<a href="#">USBPS-18131</a>	Do not send traffic until UUT is in correct role
<a href="#">USBPS-18125</a>	Two scenario the lead SW to crash while in Print Preview
<a href="#">USBPS-18106</a>	Exerciser: Support interrupted AMS
<a href="#">USBPS-18079</a>	Sending Idle Symbols during Recovery.Active
<a href="#">USBPS-18054</a>	M310C does not trigger on Transfers when host is on the left
<a href="#">USBPS-18053</a>	Add "About Box" info to Tell Teledyne LeCroy information
<a href="#">USBPS-17958</a>	(FR) Enhance decoding of new EXTENDED PORT STATUS message in 3.1 Gen-2 spec
<a href="#">USBPS-17949</a>	A/D Current Calibration Mechanism needed for current measurements
<a href="#">USBPS-17902</a>	Add Support for switching VBus Capacitors for Compliance 2.3.2.1 and 2.3.2.2
<a href="#">USBPS-17891</a>	Add PD Transfer level errors
<a href="#">USBPS-17843</a>	LPM decoding issue
<a href="#">USBPS-17840</a>	Add FW build information for AT3, Mercury T2, Mercury T2C
<a href="#">USBPS-17833</a>	PD 3.0 Support in SW and BE
<a href="#">USBPS-17819</a>	Occasional crash after during usb2 trace analysis
<a href="#">USBPS-17794</a>	(FR) PD Hard Reset - infer the direction by monitoring the bit rate from each link partner.
<a href="#">USBPS-17533</a>	No license limitation message after try to export to .csv with trace captured with unsupported license
<a href="#">USBPS-17321</a>	X34 trigger in not working
<a href="#">USBPS-17320</a>	Allow repeated external pulses (triggers) Worked in 4.90 release, but not in current release. Tested on M3x and AT3.
<a href="#">USBPS-17269</a>	USB Suite loses focus to other application after captured blank trace
<a href="#">USBPS-17061</a>	Decode HID Telephony commands (and others)
<a href="#">USBPS-16749</a>	SSIC - X34 - Intermittent Timestamp Errors

<a href="#">USBPS-16724</a>	m3x DRP Register Readback Compare Fail on USB2.0 connection
<a href="#">USBPS-16650</a>	USB 2.0 events out of place in PD capture
<a href="#">USBPS-16570</a>	SSIC HS capture - does not show DIF-N DIF-P and DIF-Z Transitions
<a href="#">USBPS-16568</a>	SSIC Filter out of Logical IDLE, SKPs and LUP/LDN isn't working
<a href="#">USBPS-16567</a>	SSIC HS Packets are out of order
<a href="#">USBPS-16556</a>	[Advisor T3] Signal Parameter information not saved
<a href="#">USBPS-16487</a>	Fake daisy chain appear in Analyzer Devices window when connecting M3i (SN:10461) with usb
<a href="#">USBPS-16295</a>	Confusing message when search the next packet while it is already the last been found
<a href="#">USBPS-16276</a>	USBTMC decoding is insufficient
<a href="#">USBPS-15922</a>	Filter Out Transaction IN Handshake ANY not working for USB 2.0
<a href="#">USBPS-15824</a>	Packets for TERM and VBUS are not counted in Packets in Traffic Summary Report
<a href="#">USBPS-14796</a>	SCSI decoding progress bar is appear in desktop instead in the suite
<a href="#">USBPS-13216</a>	Add graph legend inside USB3 Link States Timing View
<a href="#">USBPS-13135</a>	SW always hang when connecting M3x into USB3 port in Intel Z87 chipset.
<a href="#">USBPS-11738</a>	All DPH and TP packets will be hidden if choose to hide all but two or more different Stream ID
<a href="#">USBPS-11462</a>	Keep Across Recordings shall remember the SCSI Cmd Set
<a href="#">USBPS-10662</a>	USB 1.0/2.0 Audio decodes are not working correctly.
<a href="#">USBPS-8413</a>	Add Application Decode Level -sensitive Data Length Searches
<a href="#">USBPS-4469</a>	BREAK in scripts causes a short delay instead of waiting for the next command

## 4.8. *Version 7.30 Build 2210 (April 2, 2016)*

- This is version 7.30 of the USB Protocol Suite.
- New Features
  - Bug Fixes
  - Type-C Compliance Support
  - Enhanced Type-C Event Capturing
  - Role-Swap support
  - Power Tracker Enhancements
    - Capture VCONN voltage
    - Improved vertical scaling
  - Real-time upload in snapshot mode
- This release supports the following Teledyne LeCroy products:
  - Eclipse X34
  - Voyagers: M3i, M3x, M310, M310C
  - Advisor T3
  - Mercury T2, T2C
- This release supports the following specifications:
  - USB 3.1 Specification Version 1.0 of August 11, 2014 (Including all ECN's)

- SuperSpeed Inter-Chip Spec 1.01 February 11, 2013
- USB 2.0 Specification up to ECN of July 16, 2007
- USB Power Delivery Specification Revision 2.0 V1.1 May 2015
- USB Type-C Cable and Connector Specification Revision 1.2 November 24, 2015

- This release includes Bug Fixes and Enhancements for the following issues:

Bug ID	Summary
<a href="#">PnW18148</a>	Crash when viewing BIST raw data
<a href="#">PnW18109</a>	UASP decoding problem
<a href="#">PnW18081</a>	Interrupt In transactions should not be grouped into Transfers
<a href="#">PnW18075</a>	Crash during decoding due to Microsoft Complier bug
<a href="#">PnW18045</a>	Isoch transfers Show incorrect data payload size - 0 bytes transferred
<a href="#">PnW18024</a>	Customer DUT does not link up at SS through M310C
<a href="#">PnW18070</a>	Can't open trace info
<a href="#">PnW17997</a>	Crash while decoding SS trace
<a href="#">PnW17991</a>	Exerciser field is automatically set to M310 when run compliance with M310C
<a href="#">PnW17977</a>	Allow Power Tracker to rescaled vertically
<a href="#">PnW17951</a>	Fix VBus sampling interval for M3x, M310, M310C
<a href="#">PnW17946</a>	2 new VSE Methods: GetTraceFilePath() and GetTraceFileNameOnly()
<a href="#">PnW17929</a>	Exerciser should respond to Get Sink Cap
<a href="#">PnW17921</a>	PD Compliance - M310C captures unusual failure scenario -
<a href="#">PnW17919</a>	Crash after closing the SW after exported .csv file of SSP trace
<a href="#">PnW17915</a>	Source Capability messages must be responded to
<a href="#">PnW17896</a>	Trace displaying fraction of captured data
<a href="#">PnW17890</a>	M310 and M310C: Remove Legacy LFPS selection in Recording Options.
<a href="#">PnW17888</a>	Scrambling/Polarity DownStream/Upstream are ambiguous on Type-C 3.1 analyzers like M310C
<a href="#">PnW17887</a>	M310 and M310C: Implement U2 inactivity timeout for SS+ traffic in BE
<a href="#">PnW17884</a>	SS+ Polarity auto-detection issue
<a href="#">PnW17881</a>	Allow Customer to use PD exerciser script to select override Voltages and Currents that do not conform to the protocol
<a href="#">PnW17873</a>	USB3 Packet Hiding field in Display Option looks truncated
<a href="#">PnW17872</a>	Misaligned on options in Misc.PD/CC page
<a href="#">PnW17868</a>	Change default color of Discover Identity cells
<a href="#">PnW17852</a>	Unknown Publisher when running Autorun.exe (Needs new Digital Signature)
<a href="#">PnW17848</a>	Crash when opening .utg file
<a href="#">PnW17847</a>	Vbus packet parser crash
<a href="#">PnW17842</a>	Move Alias naming of UUT to separate tab in Rec Options so users can name them for all USB analyzers

<a href="#">PnW17839</a>	Change the Rx Tx word in formula description
<a href="#">PnW17837</a>	Add VConn Voltage capture to M310C Power Tracker
<a href="#">PnW17831</a>	Problem with overwriting file name when doing Save As
<a href="#">PnW17815</a>	Software shows "Encountered an improper argument" error message continuously when the StopRecording command is called
<a href="#">PnW17808</a>	Type-C Compliance - Provide SW to support all the USB Compliance needs for these tests
<a href="#">PnW17800</a>	RTS: Use new platform-specific terms for Tx source rather than old Tx/Rx which was used for all.
<a href="#">PnW17772</a>	SSIC Gears 2 and 3 not supported with the released Bus Engine
<a href="#">PnW17762</a>	Exerciser: Add library function for Compliance entry
<a href="#">PnW17722</a>	Stop Command does not reset Exerciser
<a href="#">PnW17667</a>	Remove LOOPBACK state from SetLinkState() in Exerciser
<a href="#">PnW17586</a>	Allow override of CC connection for USB Exerciser (3.1 traffic can work w/o PD)
<a href="#">PnW17547</a>	Compliance: TD 7.33-34: Missing Compliance Patterns (UPDATE: 7.34 still fails at SS+ , does not enter compliance mode)
<a href="#">PnW17545</a>	Issue opening traces from read-only target location
<a href="#">PnW17526</a>	Incompatible Recording Options File stops file from loading
<a href="#">PnW17423</a>	Expand LFPSPeriod range up to 200 ns
<a href="#">PnW17413</a>	M310C "Trace is blank" message occurs every time hit Record
<a href="#">PnW17345</a>	Add PD exerciser manual in Guide to Manual webpage
<a href="#">PnW17285</a>	[M3x+]Analyzer Control from Exerciser: Improper Argument
<a href="#">PnW17223</a>	Not displaying electrical idle
<a href="#">PnW17222</a>	All for U1 -> U2 transition due to timeout
<a href="#">PnW17221</a>	Update speed cell for LFPS/Idle/VBus events
<a href="#">PnW16942</a>	Standard Requests can be longer than as defined in Spec
<a href="#">PnW16889</a>	Unable to enumerate after switching between SS & SS+
<a href="#">PnW16782</a>	Link Tracker GUI enhancement to show overlapped symbols due to time quantization issues
<a href="#">PnW16776</a>	(FR) Add ability to automatically scroll display (real-time) while still capturing in snapshot mode
<a href="#">PnW16727</a>	T2C driver was difficult to be installed on fresh OS without any other USB analyzer installed before
<a href="#">PnW16671</a>	Allow decoding options to be refreshed
<a href="#">PnW16612</a>	Device Descriptor transfer not decoded
<a href="#">PnW16568</a>	SSIC Filter out of Logical IDLE, SKPs and LUP/LDN isn't working
<a href="#">PnW16533</a>	Needs to update Guide to Manual page for Mercury T2C
<a href="#">PnW16393</a>	Click on image M310 and AT3 will jump to M310C information hyperlink.
<a href="#">PnW16378</a>	Recording rules should be completely unmodifiable when opened from Trace File
<a href="#">PnW16205</a>	Allow users to Hide All devices with a single click
<a href="#">PnW15545</a>	Display Packet Duration field in CATC Trace View
<a href="#">PnW14973</a>	No tooltip for header pattern events

<a href="#">PnW10319</a>	"Device is waiting" message does not disappear after trace complete upload into viewer
<a href="#">PnW10197</a>	[FR] add EDB in transfer level
<a href="#">PnW4993</a>	Get Trigger Packet Number / Trigger Timestamp request in VSE

## 4.9. Version 7.26 Build 2148 (January 5, 2016)

- This is version 7.26 of the USB Protocol Suite.
- New Features
  - Enhancements to support PD Compliance
  - Show Role Swap in Trace
  - Bug Fixes
- This release supports the following Teledyne LeCroy products:
  - Eclipse X34
  - Voyagers: M3i, M3x, M310, M310C
  - Advisor T3
  - Mercury T2, T2C
- This release supports the following specifications:
  - USB 3.1 Specification Version 1.0 of August 11, 2014 (Including all ECN's)
  - SuperSpeed Inter-Chip Spec 1.01 February 11, 2013
  - USB 2.0 Specification up to ECN of July 16, 2007
  - USB Power Delivery Specification Revision 2.0 V1.1 May 2015
  - USB Type-C Cable and Connector Specification Revision 1.1 April 3, 2015
- This release includes fixes for the following issues

Bug ID	Summary
<a href="#">PnW16111</a>	LUP and LDN not filtered out when Host connected to connector #1 . Introduce new mechanism which does not rely on Host being attached to Right connector and Device being attached to Connector for Type-C systems
<a href="#">PnW17742</a>	Many Request decoding errors
<a href="#">PnW17378</a>	T2C: Failing to connect Chromebook & Power Supply
<a href="#">PnW17346</a>	Enforce PD Compliance and Exerciser License Bits Correctly after November 30, 2015
<a href="#">PnW17699</a>	Crash when discovering device or starting simulator
<a href="#">PnW17327</a>	Improve early PD negotiation timing
<a href="#">PnW17305</a>	Disk failed to initialize after SS drive emulation.
<a href="#">PnW17304</a>	Fail to format the disk from drive emulation SSP with M310
<a href="#">PnW17660</a>	Traffic Summary show 0 values at Transaction Level
<a href="#">PnW17299</a>	Problem with Hard Reset and Cable Reset packets
<a href="#">PnW17547</a>	Compliance: TD 7.33-34: Missing Compliance Patterns
<a href="#">PnW17520</a>	Traffic Summary crash

<a href="#">PnW17172</a>	Gear and Lane # for Eclipse X34 picture in user manual and datasheet are wrong.
<a href="#">PnW17472</a>	Cannot do compliance using 7.20 USB software and 2.56 B346
<a href="#">PnW16986</a>	USB Compliance: TD 10.120: M310C vs M3i discrepancies
<a href="#">PnW17363</a>	PD: Support cable role in exerciser (e-marker)
<a href="#">PnW17362</a>	PD: Add Error Injection to basic and high level commands
<a href="#">PnW17329</a>	Marking exerciser traffic as from DUT
<a href="#">PnW17620</a>	Response to SCSI command is not shown in Transfer View
<a href="#">PnW17270</a>	Trigger status did not show trigger on what event when trigger on PD with M310C
<a href="#">PnW17535</a>	Alias cells not displaying in trace
<a href="#">PnW17189</a>	Host Emulator sometimes sends incorrect LCRD during advertisement at SS+
<a href="#">PnW17151</a>	High Speed Auto-Detect fails with Device below hub. M310, M310C
<a href="#">PnW16007</a>	Sample USB 2.0 Gen file "FS_Enum_Break_Wrap_Sample.utg" not working any more.
<a href="#">PnW17449</a>	USB3.1 gen1 Exerciser and Compliance Test Issue - Require 10G license instead of 5G
<a href="#">PnW17435</a>	HS Emulation failure with Device who Chirp quickly after reset ; Host seems to miss them
<a href="#">PnW17412</a>	Illogical CC Events in Exerciser trace
<a href="#">PnW17710</a>	Flickering seen in status bar if cable attach to exerciser port
<a href="#">PnW16919</a>	PD: Need PD Error Triggers
<a href="#">PnW16918</a>	PD: Add PD / CC Errors to Error Summary
<a href="#">PnW17099</a>	When recording PD only - vBus ON / vBus OFF events are not getting captured
<a href="#">PnW17091</a>	Connector voltage status is not visible when recording: Need modeless status window
<a href="#">PnW17369</a>	Decode PD Class Feature Selectors
<a href="#">PnW17367</a>	Both LED ports for M310C are still illuminating after unplug the cable
<a href="#">PnW17364</a>	PD: Support BIST packets
<a href="#">PnW16269</a>	USB Compliance: TD 7.36 SS+ failure AH 142
<a href="#">PnW17347</a>	PD simple triggers from previous setting still in effect after being deselected
<a href="#">PnW17614</a>	SS+ Link Tracker display problems
<a href="#">PnW14632</a>	SS transfers are split at NRDY
<a href="#">PnW17340</a>	Trigger Mode and Trigger Position not shown in Recording Option Summary
<a href="#">PnW17179</a>	Compliance : TD 7.30: Need to allow for early Port Config
<a href="#">PnW17422</a>	Remove M3 from DVD-ROM includes support product in Overview webpage.
<a href="#">PnW17420</a>	Go to Download page button is not working
<a href="#">PnW14497</a>	Add BE's Trigger reason to Trace Info and Trigger Tooltip - Mercury T2
<a href="#">PnW17372</a>	Errors should propagate up all levels
<a href="#">PnW17619</a>	Still Image did not show any attributes in Transfer View.
<a href="#">PnW17286</a>	Analyzer Control from Exerciser: WaitForTrace flag causing hang
<a href="#">PnW17222</a>	All for U1 -> U2 transition due to timeout
<a href="#">PnW16923</a>	A nullified DPP shall append DPPABORT OS immediately after its DPH
<a href="#">PnW16922</a>	SSP Length Field 'Replica' not decoded properly.
<a href="#">PnW17374</a>	SSP traffic filter in still showing Idle and SKIP
<a href="#">PnW17306</a>	RTS doesn't show activity graph and throughput reading for SSP
<a href="#">PnW16489</a>	Search -> Go to Marker -> All Markers does not display marker created thru Link Tracker win

<a href="#">PnW16910</a>	Allow traffic to be hidden for live display
<a href="#">PnW16237</a>	Wrong hyper link in About Page for M310C
<a href="#">PnW17542</a>	DFU Functional Descriptor missing

#### 4.10. Version 7.20 Build 2085 (October 7, 2015)

- New Features
  - Power Delivery Exerciser
  - Power Delivery Packet and Transaction Display Enhancements
  - Power Delivery Triggers
  - Bug Fixes
  - Windows 10 Support (Windows XP no longer tested or fixed)
- This release supports the following Teledyne LeCroy products:
  - Eclipse X34
  - Voyagers: M3i, M3x, M310, M310C
  - Advisor T3
  - Mercury T2, T2C
- This release supports the following specifications:
  - USB 3.1 Specification Version 1.0 of August 11, 2014 (Including all ECN's)
  - SuperSpeed Inter-Chip Spec 1.01 February 11, 2013
  - USB 2.0 Specification up to ECN of July 16, 2007
- This release includes fixes for the following issues

Bug ID	Summary
<a href="#">PnW17161</a>	USB 3.1 Exerciser - Do not open Graphic Scenario
<a href="#">PnW17144</a>	Display Object Position cell on Enter Mode command
<a href="#">PnW17104</a>	Crash on right Click "show VDM" or "View TRA fields" causes hang
<a href="#">PnW17076</a>	Error Report button is not working with PD trace
<a href="#">PnW17075</a>	Max Trace Segment Size in summary option page not reflect to Recording Options setting changes
<a href="#">PnW17032</a>	PD Adapter not connecting
<a href="#">PnW17013</a>	PD: CRC32 error behavior: Spec View shows expected rather than captured CRC-32 value
<a href="#">PnW16914</a>	CC Events: Port Status should describe Power Role (Source/Sink)
<a href="#">PnW16903</a>	Compliance: TD 7.1: M3i begins sending LFPS early
<a href="#">PnW16900</a>	Remove yellow Cable Status LED from software
<a href="#">PnW16891</a>	PD/CC Event packets out of order
<a href="#">PnW16888</a>	Not issuing ERDY in SS+ Device Emulation enumeration (SET_ISOCH_DELAY support)
<a href="#">PnW16887</a>	Scrambled Data Incorrect in Link Tracker
<a href="#">PnW16884</a>	Decode 0xFF01 commands from Display Port spec

<a href="#">PnW16881</a>	PD: Modal & Rsvd fields swapped in ID Header
<a href="#">PnW16847</a>	Unable to open Spec View after capturing PD trace
<a href="#">PnW16846</a>	M310C issuing prompt with USB 2.0/3.1 are disabled
<a href="#">PnW16787</a>	Ability to insert 192 Bit SKP's using Voyager Exerciser (Documentation update)
<a href="#">PnW16767</a>	PD Spreadsheet View Crash
<a href="#">PnW16764</a>	ExportToCsv API information in manual need to be corrected
<a href="#">PnW16725</a>	Crash happens when changing SCSI command set in temporarily "Find All" trace
<a href="#">PnW16703</a>	No traffic captured with large buffer (> 2047 MB) when amount of traffic is tiny
<a href="#">PnW16688</a>	Place PD with USB 2 and 3 in Rec Options
<a href="#">PnW16680</a>	Audio Device Class request decoding
<a href="#">PnW16652</a>	Recording Options won't save with Manual Trigger selected
<a href="#">PnW16573</a>	SS+ false CRC Errors trigger
<a href="#">PnW16568</a>	SSIC Filter out of Logical IDLE, SKPs and LUP/LDN isn't working
<a href="#">PnW16561</a>	When running Snapshot or Manual Trigger, trigger tooltip only displays Packet 0 Triggered On for MT2 and MT2C for all HS FS LS
<a href="#">PnW16558</a>	M310C cannot be DFP in Hub Compliance
<a href="#">PnW16521</a>	PD Needs view of raw bytes/symbol (4b5b)
<a href="#">PnW16496</a>	Rec Rules: State change doesn't reset timer
<a href="#">PnW16494</a>	PD: Simple Triggers needed for Power Delivery and CC on M310C and Mercury T2C
<a href="#">PnW16491</a>	Automation Recording Status percentage complete indicates values larger than 100%
<a href="#">PnW16484</a>	Status information in analyzer devices windows show inverted IP Address for M3x
<a href="#">PnW16456</a>	Need to identify partners in case of power role swap
<a href="#">PnW16448</a>	Host exerciser does not respond with the SS+ LPMA link command in response to LAU link commands
<a href="#">PnW16446</a>	Host exerciser fails to generate SS+ Framing Error
<a href="#">PnW16400</a>	Crash calling "Save As" in automation API
<a href="#">PnW16390</a>	Compliance: TD 10.117, TD 10.115:: Not sending LCRD for LMP
<a href="#">PnW16274</a>	Add Hiding for CC events + Stacking on CC events
<a href="#">PnW16273</a>	Adding Transaction Layer for PD traffic
<a href="#">PnW16271</a>	Add GetFullPathAndName() to API
<a href="#">PnW16197</a>	USB2 - Trigger on data pattern not as expected (Needs to support up to 16 bytes)
<a href="#">PnW16192</a>	Scale Power Tracker Automatically
<a href="#">PnW15952</a>	SW crashes after spooled in limited disk space
<a href="#">PnW15512</a>	Need to mirror X34 status LED's in SW pane
<a href="#">PnW13238</a>	Couldn't load the saved search option

#### *4.11. Version 7.10 b 2006 (June 4, 2015)*

- This is version 7.10 of the USB Protocol Suite.
- New Features
  - Mercury T2C USB 2.0 and Power Delivery Analyzer with USB Type-C Connectors

- Bug Fixes
- This release supports the following Teledyne LeCroy products:
  - Eclipse X34
  - Voyagers: M3i, M3x, M310, M310C
  - Advisor T3
  - Mercury T2, T2C
- This release supports the following specifications:
  - USB 3.1 Specification Version 1.0 of August 11, 2014 (Including all ECN's)
  - SuperSpeed Inter-Chip Spec 1.01 February 11, 2013
  - USB 2.0 Specification up to ECN of July 16, 2007
- This release includes fixes for the following issues

Bug ID	Summary
<a href="#">PnW16653</a>	Analyzer hang when running RTS before any traffic started
<a href="#">PnW16644</a>	Fix crash when loadin 2 <sup>nd</sup> Recording Options file
<a href="#">PnW16580</a>	Use same decoders for SS+ and SSIC and SS transfers
<a href="#">PnW16512</a>	Triggering on U3 exit instead of Warm Reset
<a href="#">PnW16477</a>	ProtoSync is not able to process second trace complaining that the previous import is in progress
<a href="#">PnW16451</a> , <a href="#">PnW16657</a>	incorrect trigger USB 2.0 traffic on M310 and M310C
<a href="#">PnW16450</a>	incorrect trigger on SS+ Training Sequence Reset bit
<a href="#">PnW16449</a>	Document: exerciser script manual on description of Disable LPMA
<a href="#">PnW16447</a>	crash while viewing SS+ IPS tooltip in link tracker
<a href="#">PnW16440</a>	Unplugging the Ethernet Cable Of M3x Causes Crashes And Error Message
<a href="#">PnW16439</a>	Disconnect Ethernet Device Causes A Crash
<a href="#">PnW16424</a>	Crash when Traffic Summary view is open during upload; Not enough disk space to complete the operation error message appear
<a href="#">PnW16423</a>	Additional option not applied if press "X" on SCSI Event Properties in advanced mode
<a href="#">PnW16370</a>	Status information in analyzer devices windows show inverted IP Address for M310 and M310C
<a href="#">PnW16324</a>	Force trigger marked in PD snapshot trace.
<a href="#">PnW16314</a>	Slow Clock hyperlink is not working
<a href="#">PnW16309</a>	Allow changing colors of PD Fields
<a href="#">PnW16186</a>	PD: Need Idle Time Field Cell between packets on th PD channel
<a href="#">PnW16185</a>	Alternate color scheme for Power Tracker (Addresses Red/Green Color blindness)
<a href="#">PnW16184</a>	Quick Timing Markers should be added to Packet, Tra number cells, and combined Timestamp/Packet number cells
<a href="#">PnW16179</a>	Added Spec View of PD packets

<a href="#">PnW16077</a>	Need "C" Connector LED's reflected in SW
<a href="#">PnW15898</a>	SS+ RTS always zero on graph and statistic
<a href="#">PnW15880</a>	SSP polarity not working
<a href="#">PnW15660</a>	Compliance / API: Unable to run Compliance when powering on Voyager when USB Suite already opened
<a href="#">PnW15614</a>	Better behavior when trying to open an already-opened file
<a href="#">PnW15540</a>	Updates to SCSI Decoding
<a href="#">PnW15512</a>	Need to mirror X34 status LED's in SW pane
<a href="#">PnW13428</a>	Glitch in showing speed LED indicators in mainframe in small sizes

#### 4.12. Version 7.02 b 1957 (April 23, 2015)

- This is version 7.02 of the USB Protocol Suite.
- New Features
  - Supports all current USB and SSIC analyzers
  - Bug Fixes
- This release supports the following Teledyne LeCroy products:
  - Eclipse X34
  - Voyagers: M3i, M3x, M310, M310C
  - Advisor T3
  - Mercury T2
- This release supports the following specifications:
  - USB 3.1 Specification Version 1.0 of August 11, 2014 (Including all ECN's)
  - SuperSpeed Inter-Chip Spec 1.01 February 11, 2013
  - USB 2.0 Specification up to ECN of July 16, 2007
- This release includes fixes for the following issues

Bug ID	Summary
<a href="#">16007</a>	Update Exerciser Manual to include USB 3.1 instructions
<a href="#">15823</a>	SSIC Data Packet Header cannot be triggered
<a href="#">16261</a>	Unable to select USBTMC decoding
<a href="#">16180</a>	PD "Data" Field Cell should be expandable/collapsible, SVID should be decoded
<a href="#">16230</a>	X34: Low Speed not captured
<a href="#">16208</a>	TD.10.113 Failed in 2.40.0321 but Passed in 2.10.0272
<a href="#">16057</a>	Update Exerciser Manual to include USB 3.1 instructions
<a href="#">15163</a>	Crash during huge spooling upload
<a href="#">5114</a>	Save Traffic Summary in Excel or CSV format besides the existing HTML format
<a href="#">15741</a>	Automation API needs "Ex" versions of GetPacket(), GetPacketsCount(), GetTriggerPacketNum() to support 64-bits
<a href="#">15864</a>	Update SSIC Manual to show new Link Tracker features

<a href="#">15513</a>	SSIC LTSSM and Link State Timing Views needed
<a href="#">15708</a>	Strange glitch before Hot Reset
<a href="#">16167</a>	Change BE default for RxDetect interval from 5ms to 12ms (5ms was preventing Customer's Hardware from coming out of warm reset for unknown electrical reasons)
<a href="#">16215</a>	Wrong analyzer picture shown in About page and Add Device page for M310C
<a href="#">15857</a>	Random crash by deleting markers from All marker dialog
<a href="#">16128</a>	SW crash when try to open compliance generated trace
<a href="#">15877</a>	Recording Option page refresh to first analyzer in list after load the recording option setting
<a href="#">15880</a>	SSP polarity not working
<a href="#">16120</a>	M3i: Upstream Polarity Inversion causing errors during Host compliance testing 6.1 and 6.1.1 (explicit settings ON and OFF)
<a href="#">14583</a>	If a packet is selected it should remain on the screen after expand/collapse or compact/uncompact events
<a href="#">16187</a>	PD: Missing last packets (need to flush capture buffer)
<a href="#">16110</a>	M310C USB 2 Exerciser Failure: Devices don't respond (Tested with Compliance) LS, FS, and HS.
<a href="#">16199</a>	M310C Host Compliance Failures
<a href="#">16178</a>	PD: VConn Event seen on unmarked cable
<a href="#">16208</a>	TD.10.113 Failed in 2.40.0321 but Passed in 2.10.0272

### 4.13. Version 7.00 b 1942 (March 19, 2015)

- This is version 7.00 of the USB Protocol Suite.
- New Features
  - Support for Voyager M310C USB 3.1 Analyzer with C Connectors and Power Delivery
  - **Note: FSK Power Delivery over VBus not supported in the Voyager M310C model**
  - Bug Fixes
- This release supports the following Teledyne LeCroy products:
  - Voyagers M310C
  - *This Release was not validated for other Teledyne LeCroy USB or SSIC analyzers*
- This release supports the following specifications:
  - USB 3.1 Specification Version 1.0 of August 11, 2014 (Including all ECN's)
  - SuperSpeed Inter-Chip Spec 1.01 February 11, 2013
  - USB 2.0 Specification up to ECN of July 16, 2007
- This release includes fixes for the following issues

Bug ID	Summary
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<a href="#">16057</a>	Add info on SS+ exerciser parameters to USB Exerciser Script Manual.
<a href="#">15467</a>	Clean up decoder temp files menu item needed, allow user to NOT create them
<a href="#">16000</a>	Change IPS packets from Errors to Warnings
<a href="#">15513</a>	SSIC LTSSM and Link State Timing Views added
<a href="#">16043</a>	Crash when opening two traces from 3.1 SS example folder
<a href="#">15876</a>	SW crash if detaching device when recording option is open and go to sequence rule
<a href="#">15961</a>	SW crash when opening Trace Preview in USB3.1 Exerciser window
<a href="#">15841</a>	SSIC VSE support and Manual Update
<a href="#">14800</a>	Glitch at Navigator after opening trace that has a need for update.
<a href="#">15732</a>	Trace view mode is not saved in default display options
<a href="#">11025</a>	Multiple view of document has basic problems with Transfer Levels design and implementation
<a href="#">15786</a>	'Delete all markers for this Packet' function not working
<a href="#">15911</a>	SSP Advanced mode to Simple mode did not clear SS+ DPHP Framing Error trigger
<a href="#">15921</a>	crash during merging SS or SSP trace files
<a href="#">15912</a>	SSP Standard Request/SCSI commands can't be triggered through direct events
<a href="#">15860</a>	SSIC Crash during scrolling specific trace that contains many errors
<a href="#">8661</a>	SCSI traffic summary or search not update with command set changed
<a href="#">15945</a>	Fix Go To (Min, Max) in Power Tracker
<a href="#">15163</a>	Crash during huge spooling upload
<a href="#">15856</a>	Crash during spooling after 6-7 hours
<a href="#">15944</a>	Add Power Tracker example file
<a href="#">15716</a>	User can't set Trace file name from Automation, Serial # appended

#### *4.14. Version 6.05 b 1898 (February 10, 2015)*

- This is version 6.05 of the USB Protocol Suite.
- New Features
  - SSIC Analysis with Eclipse X34 Platform
  - Bug Fixes
- This release supports the following Teledyne LeCroy products:
  - Eclipse X34
  - Voyagers M3i, M3x, M310
  - Advisor T3
  - Mercury T2
- This release supports the following specifications:
  - USB 3.1 Specification Version 1.0 of August 11, 2014 (Including all ECN's)

- SuperSpeed Inter-Chip Spec 1.01 February 11, 2013
  - USB 2.0 Specification up to ECN of July 16, 2007
- This release includes fixes for the following issues

Bug ID	Summary
<a href="#">PnW15739</a>	More CDC Decoding problems
<a href="#">PnW15661</a>	Vendor defined device class incorrectly decoded as unknown on interfaces
<a href="#">PnW15655</a>	Buffer Size unit in Recording Option is missing after chose Spooled Recording
<a href="#">PnW15635</a>	Remove Export to USB 3.1 Exerciser Script option, as it does not work as customers would think
<a href="#">PnW15606</a>	Add explicit casting to .vbs examples
<a href="#">PnW15589</a>	Change distribution from CD to DVD
<a href="#">PnW15537</a>	Trigger Mode doesn't automatically set to Event Trigger after add new trigger event in advance mode
<a href="#">PnW15536</a>	Software crashes with Double click on packet header
<a href="#">PnW15535</a>	X34: Timestamp reset with trigger after 2 hours
<a href="#">PnW15534</a>	X34: incorrect actual time stamp inside trace information
<a href="#">PnW15509</a>	X34: Spec View for SSIC Traffic
<a href="#">PnW15508</a>	X34: Link Tracker for SSIC Traffic
<a href="#">PnW15445</a>	Wrong parsing of UVC Interrupt control message
<a href="#">PnW15431</a>	Crash when saving range of USB3.0 trace
<a href="#">PnW15401</a>	Send link command advertisement in alternate sequence
<a href="#">PnW15308</a>	"Wait_Termination" instruction of USB2.0 trainer does not compiled for hardware if the target unit is M310
<a href="#">PnW15260</a>	Stacking packet count and range broken in multiple cases in display
<a href="#">PnW15171</a>	USB 3.0 link does not come up for some disk drives in exerciser mode.
<a href="#">PnW15169</a>	Timing calculator producing incorrect results
<a href="#">PnW15166</a>	"Keep Across Recordings" overridden by enumeration
<a href="#">PnW15163</a>	Crash during huge spooling upload
<a href="#">PnW15158</a>	Communication Class serial_state decode is not decoding correctly
<a href="#">PnW15146</a>	[M3i/M3x] Update BusEngine to generate SCD1 signature
<a href="#">PnW15131</a>	Voyager M310 cannot capture SS or SS+ traffic, sometimes just 1 direction, different boxes different symptoms with identical SW and BE
<a href="#">PnW15107</a>	Panda AV neutralized UnitAgent.exe
<a href="#">PnW15106</a>	USB Suite crashed at end of decoding on trace just recorded from Mercury
<a href="#">PnW15056</a>	Truncate Data and SS+ traffic
<a href="#">PnW15043</a>	M3x (and M310) requires power-cycle between exerciser scripts
<a href="#">PnW15008</a>	Get few CRC16 errors on low speed device

<a href="#">PnW14989</a>	Unable to open Trace Information
<a href="#">PnW14982</a>	No trigger marker in trace when doing timer trigger for PD
<a href="#">PnW14981</a>	SW crash during uploading if PD traffic capture for 40 sec and above
<a href="#">PnW14971</a>	API ReportTrafficSummary output files were different by running twice or more
<a href="#">PnW14928</a>	M310 failed on 2.0 Host and Device Emulation
<a href="#">PnW14916</a>	SS+ SKP packets found in USB3 SS trace
<a href="#">PnW14914</a>	Idle is still visible in trace after set to filter out bus events
<a href="#">PnW14913</a>	LFPS.Ping still in trace after filter out bus events is enabled for M3i
<a href="#">PnW14912</a>	Polarity Inversion setting in M3i is not working in manual mode
<a href="#">PnW14907</a>	User able to check/uncheck 'Select to view the readme file ..' after installation completes even after unchecked it (Readme files) in features selection to install
<a href="#">PnW14897</a>	Add x34 drivers to USB Suite
<a href="#">PnW14895</a>	USB 2.0 Host Emulation Broken. No Device side traffic seen.
<a href="#">PnW14893</a>	Looping error message when click 'Timing and Bus Usage Calculation' button for all .utg file
<a href="#">PnW14892</a>	Timer trigger only support up to 77 sec
<a href="#">PnW14886</a>	HS Isochronous Endpoint decoded as Bulk
<a href="#">PnW14885</a>	DP length error triggers incorrectly
<a href="#">PnW14879</a>	Wrong trigger tooltip and in trace info for framing error trigger
<a href="#">PnW14878</a>	Update the slow clock verification manual
<a href="#">PnW14870</a>	Recording Channels in Recording Options for MT2 disappears
<a href="#">PnW14863</a>	Need to wait long time to open RTS graph's properties when actively run high throughput data
<a href="#">PnW14851</a>	Disable SS+ settings when using an analyzer that does not support SS+
<a href="#">PnW14833</a>	The current selected search options are not cleaned when users load stored search options.
<a href="#">PnW14831</a>	Add information of trigger condition for USB2 in tooltip and Trace Info
<a href="#">PnW14812</a>	Vertical display captures side slide bar not available
<a href="#">PnW14811</a>	Can't Update license when 2+ units attached.
<a href="#">PnW14809</a>	Window title doesn't show the trace name after the trace path for trace inside example folder.
<a href="#">PnW14755</a>	SUPERSPEEDPLUS_ISOCHRONOUS_ENDPOINT_COMPANION added
<a href="#">PnW14641</a>	Billboard Class Decoder added
<a href="#">PnW14627</a>	Traffic Summary range doesn't apply to All Traffic report for Transaction and Transfer value
<a href="#">PnW14612</a>	Strange USB2 behavior when triggering on a single ACK
<a href="#">PnW14574</a>	No analyzer is detected when PS Suite run through 'Run As Administrator'
<a href="#">PnW14465</a>	Timing Calculator features acting inconsistently
<a href="#">PnW14460</a>	Link test TD 7.25: Passes on M3i, M3x, fails on M310
<a href="#">PnW14257</a>	License Information will shows wrong available features list after connecting another analyzer

<a href="#">PnW14107</a>	Link Commands not listed as options for Packet Type Trigger however exist and can be selected in event properties
<a href="#">PnW13860</a>	Tick box shown in black in Analyzer Device window
<a href="#">PnW13832</a>	Document that ECM Decoding is included in the CDC Class Decoder
<a href="#">PnW13801</a>	Error column in spreadsheet view not filled with error information
<a href="#">PnW13677</a>	Show last modified version of trace in Trace Information.
<a href="#">PnW13397</a>	Some issues with import scope file [not valid extension .usbraw and creating raw files always]
<a href="#">PnW13319</a>	Data pattern search fields become inaccessible with some fonts
<a href="#">PnW13238</a>	Couldn't load the saved search option
<a href="#">PnW13135</a>	SW always hangs when connecting M3x into USB3 port in Intel Z87 chipset. (ALSO Sierra M122!)
<a href="#">PnW12972</a>	Eliminate the unit agent (UnitAgent.exe)
<a href="#">PnW11996</a>	Wrong Sequence Number Error - add to Traffic Summary
<a href="#">PnW9914</a>	Make the Compliance Suite VSE scripts appear in VSE window
<a href="#">PnW9274</a>	Mis-alignment GUI in Misc.USB 3.0 Recording option
<a href="#">PnW8934</a>	One of the item in drop down menu in Initiator Setting looks truncated
<a href="#">PnW8661</a>	SCSI traffic summary or search not update with command set changed
<a href="#">PnW6457</a>	all HS compliance tests fail on M3i PHY board rev 0xA & M3
<a href="#">PnW6239</a>	Spreadsheet View add the Delta time for packet or transaction
<a href="#">PnW3724</a>	Show single bit framing errors as Warnings

#### *4.15. Version 5.10 b 1773 (September 23, 2014)*

- This is version 5.10 of the USB Protocol Suite.
- New Features
  - Large File Traces. Trace files are supported up to 64 GB in size. No more Segmented captures.
  - Decode Once. Decoding information is retained in the file system, so files load quickly after the first decoding pass.
  - USB Compliance **2.13 b 280** or higher. **Check [UsbComplianceSuiteReleaseNotes.htm](#) file to verify compatibility with this version.**
  - All USB 3.1 ECN's supported (Including SSP SKP ECN)
  - Automatic DFE feature for cleaner SS+ captures
  - Bug Fixes
- This release supports the following Teledyne LeCroy products:
  - Advisor T3
    - Main BusEngine version 2.19
    - Firmware version 1.18
  - Voyager M3/M3i
    - Main BusEngine version 2.49
    - Serdes BusEngine version 1.11
    - Firmware version 1.63
    - IOHub Bus Engine 9.00

- Mercury T2
  - Main BusEngine version 1.05
  - Firmware version 1.02
- Voyager M3x
  - Main BusEngine version 1.36
  - Firmware version 1.34
  - IOHub Bus Engine 3.37
- Voyager M310
  - Main BusEngine version 1.24
  - Firmware version 1.04
  - IOHub Bus Engine 1.18
- This release supports the following specifications:
  - USB 3.1 specification version 1.0 of August 11, 2014 (Including all ECN's)
  - USB 3.0 specification version 1.0 (including errata and ECNs through May 1, 2011) of June 6, 2011
  - USB 2.0 specification up to ECN of July 16, 2007
- This release includes fixes for the following issues

Bug ID	Summary
<a href="#">PnW14716</a>	Add Grounding suggestions to the User Manual
<a href="#">PnW14710</a>	Packets count in All Report does not match with total packets count in Packet Report
<a href="#">PnW14676</a>	HS EOP message should describe 8 bits
<a href="#">PnW14635</a>	SCSI search not working
<a href="#">PnW14632</a>	SS transfers are split at NRDY
<a href="#">PnW14612</a>	Strange USB2 behavior when triggering on a single ACK
<a href="#">PnW14579</a>	Slow clock mode does not work in 5.00 SW release
<a href="#">PnW14497</a>	Add Trigger Reason to Tooltips and Trace Info
<a href="#">PnW14496</a>	Add support for SCDx
<a href="#">PnW14409</a>	External Trigger IN Not working with USB 2.0 Sequencer on AT3, Mercury, M3x, M310
<a href="#">PnW14364</a>	Power Tracker amplitude scaling problems
<a href="#">PnW14333</a>	M3x/M3i/M310/AT3/MT2: USB2.0 tracer missing last amount of captured traffic (stuck in BE fifos, needs Flushing)
<a href="#">PnW14326</a>	Automation client cannot retrieve error descriptions with some API methods
<a href="#">PnW14325</a>	Incorrect parameter returned for IsUsb3GenerationIdle() in API
<a href="#">PnW14289</a>	Power Delivery Decoding and Support (BETA)
<a href="#">PnW14288</a>	Improve checking for Disk Space and Memory Space before recording and/or opening a trace file
<a href="#">PnW14274</a>	Crash with direct navigate from transfer to packet 0
<a href="#">PnW14271</a>	Need to add SDS to Hide commands

<a href="#">PnW14268</a>	USB 3.0 Loopback mode (In Electrical Tests) is ineffective
<a href="#">PnW14221</a>	Bulk IN for Device Emulation USB 2.0 does not work (M3i)
<a href="#">PnW14212</a>	Max packets in burst should be bMaxBurst+1
<a href="#">PnW14199</a>	Trigger on Simple triggers events in sequencer doesn't work properly when Only Tx selected
<a href="#">PnW14197</a>	Upstream simple trigger cannot be triggered
<a href="#">PnW14194</a>	Restore Factory Settings (display options) not working
<a href="#">PnW14185</a>	SW crash after open Bus Utilization once the memory usage almost full
<a href="#">PnW14173</a>	MMC SCSI decoding crash
<a href="#">PnW14171</a>	M3i capture nothing with power measurement & full buffer (4095MB)
<a href="#">PnW14127</a>	M3x USB2 trig on error(default settings) happened but no errors
<a href="#">PnW14122</a>	Trigger doesn't work properly on some Link commands in SSP sequencer (LAU, Header Pattern, LCRD, LCRD2, LRTY, LBAD)
<a href="#">PnW14121</a>	M310 cannot mix with M3x or M3i in hub compliance test (CATC SYNC FAILURE)
<a href="#">PnW14119</a>	NAKed and STALLED transactions not filtered out
<a href="#">PnW14113</a>	Reconsider USB 2.0 "Standard Errors" default
<a href="#">PnW14094</a>	M310 is recognized as "Unconfigured Voyager Device" when connecting M310 through Ethernet
<a href="#">PnW14086</a>	Support for "Device Firmware Upgrade" (DFU) Class Decoder
<a href="#">PnW14080</a>	External Trigger In happens on M310 and M3x even though no SMA cable attached.
<a href="#">PnW14076</a>	Software crashes when exporting transaction info with VSE
<a href="#">PnW14057</a>	Handle read-only mode of USB3.1/3.0/2.0 Rec Rules in Recording Options dialog
<a href="#">PnW14055</a>	CATC Walk playlist will stop after played audio/video file
<a href="#">PnW14025</a>	IOHub Trigger Issues (Pulse width and repeating ext triggers)
<a href="#">PnW13999</a>	Support for USB 3.1 SKIP ECR/ECN
<a href="#">PnW13998</a>	More accurate time values in Link Tracker view
<a href="#">PnW13988</a>	M3i, AT3, M3x, M310: truncate SS traffic rarely causing CRC error
<a href="#">PnW13974</a>	Show SCDx, LBPMs messages in Transaction layer
<a href="#">PnW13973</a>	8-Bit Data capture and Display for M310
<a href="#">PnW13969</a>	Performance Optimizations and Large File Support
<a href="#">PnW13968</a>	M3x/M310: USB 2.0 Device traffic generator not wrapping
<a href="#">PnW13965</a>	2 new API's needed: ApplyRecordingOptions(ro), SetBugfferSizeEx(ULONGLONG num_bytes)
<a href="#">PnW13866</a>	Different subnet add device failed with more than one network adapter
<a href="#">PnW13710</a>	Software crashes when exporting CSV via API at transaction level when there are no transactions
<a href="#">PnW13672</a>	USB 2 compliance not working on M3x or M310 through Ethernet connection
<a href="#">PnW13357</a>	Make exporting .csv at levels above Transactions easier to do

<a href="#">PnW12363</a>	Short Packet Protocol (zero length data packets) support needed for USB 3 SS and SSP exercisers ( was Exerciser SendPipeCommand (length = zero) being ignored)
<a href="#">PnW11370</a>	Decoding engine has a problem to decode more than 4 bytes.
<a href="#">PnW11278</a>	Add Timestamp to ProtoSync traces
<a href="#">PnW11264</a>	Remove all PSG installed files when doing an uninstall
<a href="#">PnW6322</a>	User requests an API callback for display decoding complete
<a href="#">PnW5095</a>	zero "framing symbol error" in "Simple Trigger - Framing Error" triggered trace
<a href="#">PnW5078</a>	Save decoded data structures in files in a folder so they only have to be processed once
<a href="#">PnW3022</a>	Explicit CRC in Exerciser script doesn't match what is sent

#### *4.16. Version 5.00 b 1711 (June 16, 2014)*

- This is version 5.00 of the USB Protocol Suite.
- New Features
  - Voyager M310: USB 3.1 Gen II SuperSpeed Plus Enhanced 10 Gbps Analyzer and Exerciser
  - USB Compliance **2.03 b 265** or higher. **Check [UsbComplianceSuiteReleaseNotes.htm](#) file to verify compatibility with this version.**
  - Bug Fixes
- This release supports the following Teledyne LeCroy products:
  - Advisor T3
    - Main BusEngine version 2.14
    - Firmware version 1.18
  - Voyager M3/M3i
    - Main BusEngine version 2.45
    - Serdes BusEngine version 1.11
    - Firmware version 1.63
    - IOHub Bus Engine 9.00
  - Mercury T2
    - Main BusEngine version 1.01
    - Firmware version 1.02
  - Voyager M3x
    - Main BusEngine version 1.32
    - Firmware version 1.31
    - IOHub Bus Engine 3.37
  - Voyager M310
    - Main BusEngine version 1.19
    - Firmware version 1.01
    - IOHub Bus Engine 1.17
- This release supports the following specifications:
  - USB 3.1 specification version 1.0 of July 26, 2013 (Including updates to SDS, TSEQ, new LGOODS (8-15) and new header sequences for pending ECR's. SKP length ECR not currently supported.)

- USB 3.0 specification version 1.0 (including errata and ECNs through May 1, 2011) of June 6, 2011
  - USB 2.0 specification up to ECN of July 16, 2007
- This release includes fixes for the following issues

Bug ID	Summary
<a href="#">PnW13943</a>	Graphic Scenario Editor in USB3 Exerciser is broken
<a href="#">PnW13937</a>	Fix sampling rate of Power Data
<a href="#">PnW13877</a>	CDC-NCM class decoding: Spec Change
<a href="#">PnW13874</a>	Changing USB2 speed in recording option will make the recording broken
<a href="#">PnW13871</a>	GoToMarker menu has problem with more than 20 Markers
<a href="#">PnW13866</a>	Different subnet add device failed with more than one network adapter
<a href="#">PnW13826</a>	Compliance TD 7.25: U3 Wakeup LFPS not generated correctly
<a href="#">PnW13800</a>	CATC walk partially broken
<a href="#">PnW13773</a>	Recording for USB3 will not automatically stop with M3i PHY rev 0xA
<a href="#">PnW13767</a>	Idle Time tooltips provide inaccurate uncertainty
<a href="#">PnW13743</a>	Hub Compliance: TD10.102 / 10.106 - LVSD should not respond to WARM RESET
<a href="#">PnW13736</a>	Message got separated into different lines
<a href="#">PnW13711</a>	USB 2.0 Host traffic generator not wrapping
<a href="#">PnW13703</a>	New automation API GetHardwareInfo()
<a href="#">PnW13684</a>	Buffer size and Trigger Position not shown in trace file's Recording Options
<a href="#">PnW13668</a>	Warm Reset grayed out in Search (trace has LFPS Warm Reset)?
<a href="#">PnW13313</a>	Compliance: Need to exit to U1 quicker (without lots of idles)
<a href="#">PnW12575</a>	M3x and M310: Add VBus On and VBus Off events to trace for Compliance and End User
<a href="#">PnW11760</a>	SW crashed when not enough memory
<a href="#">PnW11759</a>	Sluggish when scrolling trace up and down while packet length graph is opened
<a href="#">PnW11432</a>	AT3 external trigger out with simple triggers option was not working
<a href="#">PnW11278</a>	Add Timestamp to ProtoSync traces
<a href="#">PnW10044</a>	Occasional failed state change from U2 to U0 on device emulation
<a href="#">PnW8174</a>	Performance Optimizations of Transaction Decoding

#### *4.17. Version 4.90 b 1645 (April 3, 2014)*

- This is version 4.90 of the USB Protocol Suite.
- New Features
  - SCSI Metrics to VSE and in Spreadsheet View
  - USB Compliance **1.99 b 245** or higher. **Check [UsbComplianceSuiteReleaseNotes.htm](#) file to verify compatibility with this version.**

- Bug Fixes
- This release supports the following Teledyne LeCroy products:
  - Advisor T3
    - Main BusEngine version 2.13
    - Firmware version 1.18
  - Voyager M3/M3i
    - Main BusEngine version 2.30
    - Serdes BusEngine version 1.11
    - Firmware version 1.63
    - IOHub Bus Engine 9.00
  - Mercury T2
    - Main BusEngine version 1.01
    - Firmware version 1.02
  - Voyager M3x
    - Main BusEngine version 1.17
    - Firmware version 1.24
    - IOHub Bus Engine 3.37
- This release supports the following specifications:
  - USB 3.0 specification version 1.0 (including errata and ECNs through May 1, 2011) of June 6, 2011
  - USB 2.0 specification up to ECN of July 16, 2007
- This release includes fixes for the following issues

Bug ID	Summary
<a href="#">PnW13579</a>	Software crashes when try to edit "Header patterns" in USB 3.0 Sequencer
<a href="#">PnW13526</a>	Compliance GUOT-04 FS and GUOT-04 HS tests fails
<a href="#">PnW13514</a>	Error message when loading a trace captured via Crosssync
<a href="#">PnW13452</a>	Application capturing hang with power tracker enabled and >1G buffer(M3i)
<a href="#">PnW13451</a>	Message box preventing .utg file execution from API
<a href="#">PnW13434</a>	Trace view missing after app termination
<a href="#">PnW13336</a>	Need to Add version info to the BERawFileCreator executable file
<a href="#">PnW13330</a>	Compliance - Voyager does not complete HotReset.Active exit in device mode - TD 10.108 part 5
<a href="#">PnW13320</a>	Fix User manual regarding Advisor T3 and Mercury trigger cables
<a href="#">PnW13217</a>	Enhancement: Add SCSI Metrics to VSE and in Spreadsheet View
<a href="#">PnW13213</a>	Capturing trace in Not-real time mode of record interrupted by access violation error in case of heavy file process by OS
<a href="#">PnW13209</a>	Graph plotted in Link States Timing view will disappear slider was moved in saved trace

<a href="#">PnW13208</a>	State transition in LTSSM View will mess up after trace saved using Rename method
<a href="#">PnW13193</a>	TD 7.11: Compliance Device failed train up with 1.98b239 but passed with 1.95 Build 220.
<a href="#">PnW13147</a>	Unable to delete temporary file warning message with shortcut key shift + scroll wheel up/down
<a href="#">PnW12750</a>	Foreign character instead of "us" for Delta Time
<a href="#">PnW12718</a>	Using VSE SetMarker will not generate bookmarks on both trace captured using CrossSync.
<a href="#">PnW12647</a>	Add incomplete transfers to Traffic Summary
<a href="#">PnW12266</a>	Eight digit or more for packets number will look truncated in stacking view
<a href="#">PnW11992</a>	Hub Comp: [TD.10.118, TD.10.126 and TD.10.127] Device emulator incompletes status stage before transition to non-active states when the HUB's DFP time-out is set.
<a href="#">PnW11760</a>	Crash due to insufficient memory
<a href="#">PnW11706</a>	Copy to exerciser for SCSI Command does not work for USB2.0
<a href="#">PnW11028</a>	<esc> does not quite Recording Options dialog unless you click on a widget first
<a href="#">PnW10793</a>	In Link Tracker (text Mode) TSEQ are displayed as Symbols instead of Text
<a href="#">PnW10414</a>	Two scroll bar in Recording Option's information panel when setting in medium or large size of text
<a href="#">PnW7063</a>	Add ability to add Power Tracker fields to Spreadsheet view
<a href="#">PnW6266</a>	Application will crash if API start recording is called again before display decoding is complete
<a href="#">PnW3682</a>	Problem with Graphical Bus Utilization
<a href="#">PnW712</a>	Not enough memory to display Graphs

#### *4.18. Version 4.80 b 1603 (February 10, 2014)*

- This is version 4.80 of the USB Protocol Suite.
- New Features
  - USB Compliance **1.98 b 239** or higher. **Check [UsbComplianceSuiteReleaseNotes.htm](#) file to verify compatibility with this version.**
  - Save Search Options
  - Dockable CATC Trace View
- This release supports the following Teledyne LeCroy products:
  - Advisor T3
    - Main BusEngine version 2.13
    - Firmware version 1.18
  - Voyager M3/M3i
    - Main BusEngine version 2.28

- Serdes BusEngine version 1.11
  - Firmware version 1.63
  - IOHub Bus Engine 9.00
- Mercury T2
  - Main BusEngine version 1.01
  - Firmware version 1.02
- Voyager M3x
  - Main BusEngine version 1.15
  - Firmware version 1.24
  - IOHub Bus Engine 3.37
  -
- This release supports the following specifications:
  - USB 3.0 specification version 1.0 (including errata and ECNs through May 1, 2011) of June 6, 2011
  - USB 2.0 specification up to ECN of July 16, 2007
- This release includes fixes for the following issues

Bug ID	Summary
<a href="#">PnW13133</a>	USB Upload Performance Improvements
PnW13117	M3x exerciser stop generation does not work with Ethernet connection
PnW13103	Data Truncate Feature doesn't work properly with latest BEs for M3x, Advisor T3
PnW13063	Compliance: Run performance increase on HUB Compliance
PnW13060	Need to hit VBus Reconnect Button once to enable capturing traffic on Voyager M3i.
PnW12917	Error "An unnamed file has a bad format" pops up when opening Bus Utilization.
PnW12841	Ugly fonts in higher zoom levels of Spreadsheet and compressed views
PnW12798	Recording option truncate payload is generating errors
PnW12750	Korean character instead of "us" for Delta Time
PnW12741	Enhancement: add option to configure collapsed/expanded sizes of Data Fields
PnW12651	GET_PACKET API speed up
PnW12650	GET_PACKET API speed up
PnW12649	Problems in USB Vision Scripts
PnW12633	Need "Any" - (don't care) case for handshake portion of Transaction filter for USB 2
PnW12575	Add VBus On and VBus Off events to trace for Compliance and End User
PnW12559	Compliance TD 10.120 - LVSD is sending Ping.LFPS while in U2 (U1 ->U2 timeout needs to be implemented)
PnW12545	Packet Number in traffic summary report truncated.
PnW12544	Provide the path to the merged file after merge completed
PnW12526	Hub Compliance TD.10.115 failed with 1.95b220 but passes with 1.91b212
PnW12522	Intermittent crash with Real-Time Statistics
PnW12521	M3X falsely triggers on a pattern
PnW12501	M3x: Pings Interspersed with Polling on both Device and Host side
PnW12489	Mass Storage Decoding - Details not appearing in Detail View - "Assigned Script Decoder Rejected..."
PnW12482	VBus disconnect does not last through recording start

<b>PnW12469</b>	USB3 Device -> Analyzer -> Host Signal Profiles have no affect
<b>PnW12457</b>	M3i and M3x the device emulator hangs or crashes sometimes during TD.10.126 and TD10.128
<b>PnW12447</b>	Customer request SendPipeCommand, PipeType = Interrupt
<b>PnW12426</b>	TD 6.5 Suspicious FAILs on M3x
<b>PnW12360</b>	Cursor get pulled to the left when opening trace through drag and drop method
<b>PnW12266</b>	Eight digit or more for packets number will looks truncated in stacking view
<b>PnW12253</b>	Incorrect decode of data payload for a NCM Class Request
<b>PnW12181</b>	Add LFPS events to Link State Timing View
<b>PnW12136</b>	Problems updating FW M3x through USB3 connection
<b>PnW12076</b>	USB 2.0 & UAS decoding issue- UAS decode Fails to group CMDs with DATA
<b>PnW11992</b>	Hub Comp: [TD.10.118, TD.10.126 and TD.10.127] Device emulator incompletes status stage before transition to non-active states when the HUB's DFP time-out is set.
<b>PnW11969</b>	Right click context menu could be more packet sensitive
<b>PnW11946</b>	USB P.S. - Field bcdVDC in CS_INTERFACE Displays 2 times
<b>PnW11927</b>	(TD.10.118) Routed requests to the downstream of HUB incompletes when the hub downstream port link is in non-active states
<b>PnW11790</b>	LTSSM View does not show U1 transitions when many transitions occurred.
<b>PnW11706</b>	Copy to exerciser for SCSI Command does not work for USB2.0
<b>PnW11512</b>	Trace Information was shown with HTML code
<b>PnW11463</b>	SCSI level decoding not set in display options
<b>PnW11159</b>	Not decoding Radio Class Decodes Properly
<b>PnW11068</b>	Unable to open recording options in advance mode (implement read-only mode for rec options)
<b>PnW9533</b>	Keeping raw data file as original trace file
<b>PnW8948</b>	Bus Utilization Graph shows some options twice in the drop down menu
<b>PnW7885</b>	Drop down lists are not showing up in Korean and Japanese versions of USB Protocol Suite
<b>PnW463</b>	[SW] Another HID decode problem

#### *4.19. Earlier Versions...*

Removed in Read-Me for releases 7.45 and 7.02. Contact Teledyne LeCroy Support if interested in this information.

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## 5. GPL License Statements

The Qt library is used under the terms of the GNU Lesser General Public License version 2.1 (<http://www.gnu.org/licenses/old-licenses/lgpl-2.1.html>) and the Nokia Qt LGPL Exception version 1.1. Full sources for Qt may be downloaded from the following website:

<http://qt.nokia.com>

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The Qxt library is used in USB Protocol Suite, see <http://libqxt.bitbucket.org/doc/tip/index.html>  
and <http://www.atlassian.com/hosted/terms.jsp>

The LAME library is used in USB Protocol Suite, see <http://lame.sourceforge.net/license.txt>

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## 6. Support

### *Online Download*

Please periodically check Teledyne LeCroy Protocol Solutions Group's web site for software updates and other support related to this product. Software updates are available to those users with current Maintenance Agreements.

### *Online Support*

Support email: [psgsupport@teledyne.com](mailto:psgsupport@teledyne.com)

Support website: <http://teledynelecroy.com/support/contact>

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