

CTech™ ViPER® ANLYTX Software

Version Release Notes

Release Notes

Abstract

This document provides detailed Release Note Information for the CTech™ ViPER® ANLYTX Software Platform.

Applicability

This article applies to CTech ViPER ANLYTX Software Platform (ViPER) which is a bundled software release consisting of the core ViPER Software and the Secure Add-On. Version numbers are constructed from a Major ID, Minor ID and Build ID, e.g., X.Y.zzz, where “X” represents the Major ID, “Y” represents the Minor ID and “zzz” represents the Build ID. The releases are documented according to the Major and Minor release ID’s since Build ID’s are subject to frequent changes not all associated with changes to the software.

Detailed Info

Version 1.0 of the ViPER Software was released for General Availability on December 11, 2020 following the successful completion of the Release Candidate Validation protocol. This document serves as the inception release note for the Version 1.0 release and will be revised with updated information in the event of future maintenance releases, patches, and new sub-system or feature roll-outs. It is intended to provide information about the software product for groups and individuals responsible for selecting, using, configuring, implementing, and validating the software products that are an integral part of CTech variable pathlength systems, as well as a feature change and bug fix log of future releases.

Computer System & Hardware Requirements

System Requirements

- ViPER Software has been validated for use with the Agilent Cary 60 spectrophotometer.
- ViPER Software has been validated for use with all hardware versions of the CTech™ FlowVPE® and CTech™ FlowVPX® hardware when used with an Agilent Cary 60.
- ViPER Software requires Microsoft .NET 4.7 Framework or later.
- ViPER Software has been validated for use with SQL Server Standard 2012 and SQL Server Express 2017.
- ViPER Software requires the Agilent Cary WinUV environment to run. It has been validated for use with the Cary WinUV Version 5.1.3.xxx platform.

Computer Hardware

- ViPER Software functions properly when used on the computer hardware recommended in the Agilent Cary 60 User Manual.
- ViPER Software Validation Testing was performed using the Standard Production Computer System:
 - ◇ Lenovo ThinkPad T460s
 - Intel Core i7 (Dual Core 2.6GHz 3MB)
 - 20GB 1600 MHz DDR Non-ECC RAM
 - 500GB 7200rpm Hard Disk Drive
 - Intel Integrated Graphics
 - Windows 10 64-Bit
 - Chrome 64bit V.75 or later
 - ◇ Dell Rugged Latitude 7424
 - Intel Core i7-8650U 1.90GHz
 - 16GB DDR4 RAM
 - 128GB Solid State Hard Drive
 - Windows 10 Pro 64-Bit
 - Chrome 64bit V.75 or later

Release Notes for Version 1.0.05

Release Date: Dec 10, 2020

Features and Functions Released:

ViPER Platform	<p>The overall platform is designed with an app-based architecture where each app is designed for a specific purpose. The front end is accessed through a self-hosted web site from a browser. Data is stored in the SQL Server back end, which autosaves all run data. Help documents and a system-wide audit log can be accessed from the main platform home screen. The overall system administration is done through the Admin menu of the platform.</p> <p>Major Features include:</p> <ul style="list-style-type: none"> • Display Settings • App Configuration settings • Device settings • Usage Reports • Licensing
Quick Kinetics	<p>An application that allows the user to leverage the power of variable pathlength technology for the purposes of process stream monitoring. The software will graph data over time to show how the data changes. The system also contains a robust reporting feature that allows the user to export data in a variety of different formats.</p> <p>Major Features include:</p> <ul style="list-style-type: none"> • Quick and Fixed Slope modes • Multiwavelength support • Extinction coefficient support per wavelength • Scatter Correction • Baseline Correction
Manual Controls	<p>An application that allows the user to manually manipulate supported variable pathlength hardware to support installation, configuration and maintenance.</p> <p>Major Features include:</p> <ul style="list-style-type: none"> • Quick Read/Scan • Go to Pathlength • Perform a Quick Slope reading
Validate VPT	<p>An application that allows the user to perform system suitability verification that would ensure the accuracy and reliability of supported variable pathlength hardware by measuring the connected light source.</p> <p>Major Features include:</p> <ul style="list-style-type: none"> • Quick Check • Couple Check • Coupler Align Tool

<p>SecureVPT™ Settings</p>	<p>A tool in ViPER Software that allows an administrator to assign user roles and feature access of available applications on a group or user level. Administrators can also use these security measures to dictate how eSignatures are initiated and managed during specific software events. The secure settings are designed to help the admin make the software compliant with CFR 21 Part 11.</p> <p>Major Features include:</p> <ul style="list-style-type: none"> • User Platform Access Levels • User App Access Levels • User App Feature Access • E-Signature event configurations • E-Signature user level configuration 																
<p>OPC-UA</p>	<p>An interface to the system that allows the user to set up methods and device control runs from outside ViPER. This will allow users to integrate their system with other process control software or LIMS systems.</p> <p>Major Features include:</p> <ul style="list-style-type: none"> • Start/Stop a Run • Get last Cycle Data • Open an existing method • Set method variables 																
<p>Hardware Supported</p>	<table border="0"> <tr> <td>FlowVPE</td> <td>[IN-VPE-FLOW5]</td> </tr> <tr> <td>• 3 mm Flow Cell</td> <td>[OC1004]</td> </tr> <tr> <td>• 10 mm Flow Cell</td> <td>[OC1003-01]</td> </tr> <tr> <td>• GXP Flow Cells</td> <td>[10 mm OC1005-01]</td> </tr> <tr> <td>FlowVPE-L</td> <td>[IN-VPE-FLOW5-L]</td> </tr> <tr> <td>• 1 Inch Flow Cell</td> <td>[OC1007]</td> </tr> <tr> <td>FlowVPX</td> <td>[IN-VPX-FLOW-A]</td> </tr> <tr> <td>• 10 mm GXP Flow Cell</td> <td>[OC2001]</td> </tr> </table>	FlowVPE	[IN-VPE-FLOW5]	• 3 mm Flow Cell	[OC1004]	• 10 mm Flow Cell	[OC1003-01]	• GXP Flow Cells	[10 mm OC1005-01]	FlowVPE-L	[IN-VPE-FLOW5-L]	• 1 Inch Flow Cell	[OC1007]	FlowVPX	[IN-VPX-FLOW-A]	• 10 mm GXP Flow Cell	[OC2001]
FlowVPE	[IN-VPE-FLOW5]																
• 3 mm Flow Cell	[OC1004]																
• 10 mm Flow Cell	[OC1003-01]																
• GXP Flow Cells	[10 mm OC1005-01]																
FlowVPE-L	[IN-VPE-FLOW5-L]																
• 1 Inch Flow Cell	[OC1007]																
FlowVPX	[IN-VPX-FLOW-A]																
• 10 mm GXP Flow Cell	[OC2001]																

Release Notes for Version 1.0.13

Release Date: **Dec 17, 2020**

Improvements and Issues Addressed:

ViPER Platform

- Enhanced the Help feature
- Enhanced IQOQ/PM reporting
- Fixed an issue that prevented the 22 mm Flow Cell from being loaded in a FlowVPE-L device

Release Notes for Version 1.0.19

Release Date: Jan 12, 2021

Improvements and Addressed Issues:

ViPER Platform	<ul style="list-style-type: none">• Improved functionality of eSignatures or Quick Check and Coupler Check events across supported applications• Improved functionality of Filter by Users feature in Open Data across supported applications• Resolved issue that saw ViPER failing to open with a connected FlowVPX device
Quick Kinetics	<ul style="list-style-type: none">• Improved Loading and Unloading Procedure when using a connected FlowVPE-L device• Resolved issue that saw error messages being received• Resolved issue that prevented a 22mm Flow Cell from being properly loaded into a connected FlowVPE-L device
Manual Controls	<ul style="list-style-type: none">• Resolved issue that prevented the XSA procedure from being completed after initiation• Resolved issue that prevented a user from exporting Slope Data

Release Notes for Version 1.0.38

Release Date: Feb 12, 2021

Improvements and Addressed Issues:

ViPER Platform	<ul style="list-style-type: none"> Implemented an impasse for Core activation when attempting to open while the connected device resides in a state divergent from that which was last recorded in software Resolved an issue that prevented ViPER applications from being run when connected to a FlowVPE device Updated FlowVPX loading procedure Resolved an issue that prevented smart Flow Cells from being properly loaded Resolved an issue that saw the FlowVPX zeroing again after successfully completing the loading procedure Improved search functionality within Open Data Resolved an issue that omitted Transmission Test results at the close of the loading procedure
Quick Kinetics	<ul style="list-style-type: none"> Resolved an issue that compromised the initial slope collection of initiated runs Improved clarity of Scatter Correction details in the Report Implemented I/O Configuration details to the Report Resolved an issue with I/O Configurations not being reset upon user request Resolved an issue that prevented initiated runs from being stopped upon user request Resolved an issue that made Interval Read an editable parameter when disabled Improved clarity of Coupler Check requirement when attempting to run methods that failed Quick Check Resolved an issue that prevented I/O Configurations from being saved in a method Implemented a means of clearing the test signal within I/O Configuration Resolved an issue with I/O functionality that prevented the signal from returning to the proper state following the end of a run
Manual Controls	<ul style="list-style-type: none"> Improved reliability of initiated data collection events
Validate VPT	<ul style="list-style-type: none"> Implemented Transmission Test functionality Improved functionality of Xenon Emission Line and Photometric Noise tests Improved functionality of Coupler Align feature Resolved an issue that allowed users to initiate the System Suitability procedure while the FlowVPX remained in a loaded state Improved clarity of recorded Quick Check results
SecureVPT™ Settings	<ul style="list-style-type: none"> Resolved an issue that prevented Add/Remove actions from being recorded within the Audit Log Resolved an issue the inaccurately logged password expiration actions in the Audit Log Implemented password complexity for Non-LDAP users

Release Notes for Version 1.0.55 **Release Date: Mar 29, 2021**

Improvements and Addressed Issues:

<p>ViPER Platform</p>	<ul style="list-style-type: none"> • Implemented a login function for service technicians • Resolved an issue that prevented ViPER from functioning with FlowVPE devices • Resolved an issue that prevented Core from starting with the FlowVPX in an unloaded state • Implemented password requirement for Admin Setting access in non-secure • Implemented resting state of FlowVPX to the Home position • Resolved an issue that failed to prevent active instances of ViPER from entering automatic sleep • Improved non-secure instances to only include settings and data relevant to its state • Improved I/O interface and functionality 								
<p>Quick Kinetics</p>	<ul style="list-style-type: none"> • Resolved an issue that prevented user requested Tabular Data from being displayed • Improved functionality of Report Wizard • Resolved an issue that prevented Baseline Correction from being performed 								
<p>Manual Controls</p>	<ul style="list-style-type: none"> • Resolved an issue that allowed a user to initiate Quick Scans with wavelength values exceeding one's instrument range 								
<p>Validate VPT</p>	<ul style="list-style-type: none"> • Resolved an issue that prevented Coupler Align feature from properly functioning • Improved readability of results for completed QVCA tests • Resolved an issue that saw tolerance values entered in NIST tests also being applied to Photometric Accuracy—K2Cr2O7 tests • Improved readability of a wavelength's/serial number's associated replicate settings • Resolved an issue that allowed a user to change the pre-defined significant digits of the values found within the results of completed QVCA tests • Improved readability of Holmium Oxide Wavelength Accuracy Tests • Resolved an issue that prevented Coupler Check feature from properly functioning • Resolved an issue that could prevent a user from leaving the XSA procedure should their selected sample fail its respective test • Improved accuracy of Pass/Fail criteria of completed Stray Light Tests 								
<p>SecureVPT™ Settings</p>	<ul style="list-style-type: none"> • SecureVPT can now be licensed/unlicensed, restricting or allowing access accordingly • Implemented add/remove license keys functionality on a per app basis • Implemented password protection of Admin settings for non-secure instances • Improved group-level assignment functionality 								
<p>Hardware Supported</p>	<table border="0"> <tr> <td>FlowVPX</td> <td>[IN-VPX-FLOW-A]</td> </tr> <tr> <td>• 3 mm NON-GxP Flow Cell</td> <td>[OC2002]</td> </tr> <tr> <td>• System Suitability Adapter</td> <td>[ACC-FVPX-XSA]</td> </tr> <tr> <td>• XSA Fibrette</td> <td>[OF2003]</td> </tr> </table>	FlowVPX	[IN-VPX-FLOW-A]	• 3 mm NON-GxP Flow Cell	[OC2002]	• System Suitability Adapter	[ACC-FVPX-XSA]	• XSA Fibrette	[OF2003]
FlowVPX	[IN-VPX-FLOW-A]								
• 3 mm NON-GxP Flow Cell	[OC2002]								
• System Suitability Adapter	[ACC-FVPX-XSA]								
• XSA Fibrette	[OF2003]								

Release Notes for Version 1.0.80

Release Notes: May 11, 2021

Improvements and Addressed Issues:

ViPER Platform	<ul style="list-style-type: none">• Implemented an installation path for local database environments• Resolved an issue that prevented Coupler Check from displaying percent transmissions readings upon completion• Improved Coupler Check and Quick Check to prevent premature/accidental closure after initialization
Quick Kinetics	<ul style="list-style-type: none">• Implemented an in-app option to use NiDAQ devices for IO collection• Resolved an issue that saw IO-enabled methods still outputting a current associated with the last collected slope after a run had ended• Resolved an issue that would yield a crash should IO-enabled methods be run without a connected NiDAQ device
Validate VPT	<ul style="list-style-type: none">• Implemented vProtocol UI

Release Notes for Version 1.0.86Release Date: **Jun 24, 2021****Improvements and Addressed Issues:**

ViPER Platform	<ul style="list-style-type: none">Resolved an issue with filtering acquired data from a Cary 60
Validate VPT	<ul style="list-style-type: none">Improved Coupler Align graphingImproved Baseline Flatness test resultsUpdated generated reports to include additional device information

Release Notes for Version 1.0.104 **Release Date: Aug 2, 2021**

Improvements and Addressed Issues:		
ViPER Platform	<ul style="list-style-type: none"> Implemented support of 22 mm Flow Cells Resolved an issue that prevented a 10mm Flow Cell from being properly identified with a FlowVPX device Resolved an issue that occasionally prevented the ViPER shortcut from opening ViPER Improved reliability of flow cell loading events performed outside of software Improved functionality of reordering report contents within Report Wizard Resolved an issue that saw Cary settings changing after reads in ViPER Improved detail of returned ConfiRM results within the report of applicable apps Updated OPC Version Improved reliability of Backup Datastore when disconnected from centralized SQL Server Implemented support for hardware version 4.2.16 Improved Instrument Scanning to properly handle manual stoppage Modified fresh install default settings to match Applications Group’s recommended settings 	
Quick Kinetics	<ul style="list-style-type: none"> Resolved an issue that saw completed Quick Checks yield blank results Resolved an issue that prevented runs from being properly initiated or stopped Resolved an issue that prevented Baseline Correction enabled methods from being run after baseline collection Resolved an issue that prevented loaded FlowVPE-L devices from being properly unloaded 	
Manual Controls	<ul style="list-style-type: none"> Resolved an issue that prevented ConfiRM from properly completing after initiating Updated Trace Selections to be more clear and distinguishable from one another 	
Validate VPT	<ul style="list-style-type: none"> Implemented a 60 second delay for Baseline Flatness tests to maintain consistency with Agilent Software Resolved an issue that saw an error message being returned when initiating Quick Check Resolved an issue that prevented a Coupler Check from being performed with a FlowVPE-L device Implemented hardware and software inspections to eProtocols 	
SecureVPT™ Settings	<ul style="list-style-type: none"> Implemented addition of Coupler Align, White Light, and starting QVCA tests as Feature Access Points Resolved an issue that allowed locked out users to still log in Implement password complexity for both Admin and Users 	
Hardware Supported	FlowVPX <ul style="list-style-type: none"> 22 mm GXP Flow Cell 	[IN-VPX-FLOW-A] [OC2004]

Release Notes for Version 1.1.30

Release Date: Aug 25, 2021

Features and Functions Released:

Quick Slope	<p>An application for Solo devices that allows the user to take Slope measurements.</p> <p>Major Features include:</p> <ul style="list-style-type: none"> • Quick and Fixed Slope modes • Multiwavelength support • Extinction coefficient support per wavelength • Scatter Correction • Baseline Correction • Repeat Methods • Graphing and Reporting
Quick Survey	<p>An application for Solo devices that allows the user to rapidly collect multiple spectra at a wide range of pathlengths in order to quickly determine the wavelengths (absorbance peaks) of interest and required pathlength ranges.</p> <p>Major Features include:</p> <ul style="list-style-type: none"> • Broad wavelength range • 3D Graphing and Reporting • Spectrum and Section Plots • Baseline Correction
Improvements and Addressed Issues:	
ViPER Platform	<ul style="list-style-type: none"> • Implemented optimization of SoloVPE support for all applicable applications • Improved UI responsiveness for lower screen resolutions • Resolved an issue that prevented eSignatures from being applied to required items • Improved functionality of App Configuration menus to be consistent with other Admin Settings when making modifications
Quick Kinetics	<ul style="list-style-type: none"> • Resolved an issue that saw report configuration changes not being properly reflected in said reports
Validate VPT	<ul style="list-style-type: none"> • Improved CPV testing • Implemented eSignature points for QVCA testing • Improved reliability of Photometric Accuracy—NIST test • Resolved an issue that prevented Linearity Test from performing properly • Resolved an issue that saw Coupler Check returning inconsistent and inaccurate results
SecureVPT™ Settings	<ul style="list-style-type: none"> • Improved eSign queue UI and role order • Improved LDAP syncing to check if the user was added to or removed from a group • Implemented Override capability within eSign
Hardware Supported	SoloVPE [IN-VPE-SOLO5]

Release Notes for Version 1.1.56

Release Date: Nov 18, 2021

Improvements and Addressed Issues:

ViPER Platform	<ul style="list-style-type: none"> Resolved an issue that saw the software hang upon the initial login of a user whose password was changed Implemented licensing for individual apps Resolved an issue that saw multiple licenses duplicating available apps Updated the default FlowVPX App Configuration settings to more appropriate values Resolved an issue that saw the FlowVPE using the incorrect load position for supported flow cells
Quick Kinetics	<ul style="list-style-type: none"> Implemented ability to export Raw Data Resolved an issue that prevented extended runs from completing
Manual Controls	<ul style="list-style-type: none"> Resolved a crash experienced when performing a Quick Scan after a run was conducted in another app Resolved an issue that prevented Quick Read from functioning if performed after a run was conducted in another app
Validate VPT	<ul style="list-style-type: none"> Resolved an issue that would cause the vProtocol to become locked if it had not been previously completed before closing Improved Audit Log functionality to record QVCA Export events Resolved an issue that prevented System Suitability from functioning with a FlowVPE device
SecureVPT™ Settings	<ul style="list-style-type: none"> Resolved an issue that allowed the Support account to be visible to users on a local database Resolved an issue that allowed an Admin to add User Groups that did not exist within the Active Directory Resolved an issue that prevented Overrider instances from functioning properly Resolved an issue that locked the Service User account after failed passwords attempts Improved Extinction Coefficient functionality to prevent access to users that do not possess full control Improved functionality of Domain users that reside within multiple Groups Improved functionality of Feature Access for users that reside within multiple Groups Resolved an issue that prevented eSignatures requests from behaving properly Improved reliability and consistency of LDAP and ViPER authentication

Release Notes for Version 1.1.79 **Release Date: Jan 11, 2022**

Improvements and Addressed Issues:

ViPER Platform	<ul style="list-style-type: none"> • Implemented OPC-UA Server • Implemented ViPER OPC Client communication • Implemented OPC Report Nodes • Implemented Load/Unload OPC functionality • Implemented Firmware and Hardware version visibility • Implemented 10mm PPSU Flow Cell support • Implemented 22mm PPSU Flow Cell support • Implemented Flow Cell use percentage • Implemented Updated Report Version • Improved Report Version handling of reports created in earlier incarnations of software 										
Quick Kinetics	<ul style="list-style-type: none"> • Implemented revised Flow Cell selection • Implemented caution and lock-out functionality with Flow Cells nearing and meeting their usage limits • Implemented Loading Procedure steps for System Suitability • Resolved an issue that resulted in a homing error when attempting to bypass a step within the Loading Procedure 										
Quick Slope	<ul style="list-style-type: none"> • Implemented Tall Plastic vessel support 										
Validate VPT	<ul style="list-style-type: none"> • Resolved an issue that prevented the System Suitability Log from being properly exported • Resolved an issue that compromised report formatting when running a Holmium Oxide test with Replicates enabled 										
Hardware Supported	<table border="0"> <tr> <td style="padding-left: 20px;">SoloVPE</td> <td style="padding-left: 20px;">[IN-VPE-SOLO5]</td> </tr> <tr> <td style="padding-left: 40px;">• Tall Plastic Vessel</td> <td style="padding-left: 20px;">[OC0009-2]</td> </tr> <tr> <td style="padding-left: 20px;">FlowVPX</td> <td style="padding-left: 20px;">[IN-VPX-FLOW-A]</td> </tr> <tr> <td style="padding-left: 40px;">• 10 mm PPSU Flow Cell</td> <td style="padding-left: 20px;">[OC2009-EB]</td> </tr> <tr> <td style="padding-left: 40px;">• 22 mm PPSU Flow Cell</td> <td style="padding-left: 20px;">[OC2010-EB]</td> </tr> </table>	SoloVPE	[IN-VPE-SOLO5]	• Tall Plastic Vessel	[OC0009-2]	FlowVPX	[IN-VPX-FLOW-A]	• 10 mm PPSU Flow Cell	[OC2009-EB]	• 22 mm PPSU Flow Cell	[OC2010-EB]
SoloVPE	[IN-VPE-SOLO5]										
• Tall Plastic Vessel	[OC0009-2]										
FlowVPX	[IN-VPX-FLOW-A]										
• 10 mm PPSU Flow Cell	[OC2009-EB]										
• 22 mm PPSU Flow Cell	[OC2010-EB]										

Release Notes for Version 1.1.114

Release Date: May 13, 2022

Improvements and Addressed Issues:

ViPER Platform	<ul style="list-style-type: none"> • Implemented Cary Reboot Reminder • Implemented Cycle Limit for Single-Use Flow Cells • Implemented a caution message when Cycle Limits for employed Flow Cells are near • Quick Check and Coupler Check events allocated to the General Audit Log • Resolved an issue that saw the VPX Head fail to properly detect loaded/unloaded state
Quick Kinetics	<ul style="list-style-type: none"> • Implemented the ability to perform multiple User Result calculations • Implemented the ability to run a method with both Scatter Correction and Baseline Correction enabled • Resolved an issue that prevented User Result enabled methods from being run • Resolved an issue that prevented data from being properly opened • Resolved an issue with User Results not being removed when resetting a method • Resolved an issue that prevented lengthy User Results from being properly displayed • Resolved an issue that prevented one from initiating Baseline Correction a second time • Resolved an issue that allowed a user to prematurely “Complete” Baseline Correction
Quick Slope	<ul style="list-style-type: none"> • Implemented the ability to switch between Extinction Coefficient and Concentration • Resolved an issue that prevented Repeats from completing in full • Resolved an issue that yielded incomplete Reports for User Result enabled methods within added Graphs • Resolved an issue that prevented User Results from being recovered after network loss • Resolved an issue that saw Method Details yielding no data • Resolved an issue that prevented both Concentration and EC values from being properly saved upon export • Resolved an issue with Quick Slope mode runs displaying graphed slopes that differed from their original appearance once its corresponding saved data was opened
Manual Controls	<ul style="list-style-type: none"> • Implemented support of Repeats for Quick Slope inquiry
Validate VPT	<ul style="list-style-type: none"> • Implemented degrees of access for licensed, unlicensed and service users • Removed access to service only tests from users
SecureVPT™ Settings	<ul style="list-style-type: none"> • Updated eSign App Configuration to require Author when selecting Reviewer/Approver types and ensure subsequent eSignature events perform properly • Resolved an issue that saw unedited events being recorded within the Audit Log when editing others • Resolved an issue that would not properly update Feature Access for newly created users • Resolved an issue that saw Event Type for eSignature changes being incorrectly reported within the Audit Log

Release Notes for Version 1.1.148

Release Date: Sep 26, 2022

Features and Functions Released:

AAV for Solo	<p>An application for Solo devices that allows the user to automate the testing of AAV samples to determine genome and capsid tier as well as percent full capsid ratios.</p> <p>Major Features include:</p> <ul style="list-style-type: none"> • Quick and Fixed Slope modes • Multiwavelength support • Extinction coefficient support for Capsid and DNA • Baseline Correction • Scatter Correction • % Full
--------------	---

Improvements and Addressed Issues:

ViPER Platform	<ul style="list-style-type: none"> • Resolved an issue that compromised the formatting of the Unloading Procedure in supported apps • Resolved an issue that saw the Audit Log incorrectly recording instances of reports being printed • Implemented a Firmware version check on Core startup to ensure compatibility • Improved the Audit Log to display application specific events when added to the Report • Improved Display Time Zone • Improved UTC Time Zone functionality • Improved PC Settings Time Zone functionality • Implemented an alert when loading Single-Use Flow Cells that have been used more than once • Improved Reports to include ConfiRM Standard Results in applicable apps
Quick Kinetics	<ul style="list-style-type: none"> • Resolved an issue that saw Data Points reverting back to values set within App Configuration when opening data • Improved reporting to include Validate VPT Summary automatically at the end of every run
Quick Slope	<ul style="list-style-type: none"> • Improved reporting functionality to be more clear and concise with multiple sample runs • Improved Trace Name reporting to ensure it does not truncate Sample Names • Improved Tall Plastic vessel type • Improved the order in which Run Details are displayed within the Report
Manual Controls	<ul style="list-style-type: none"> • Implemented Rep Mode for Slope Inquiry
Validate VPT	<ul style="list-style-type: none"> • Implemented SecureVPT Installation Qualification to the vProtocol
SecureVPT™ Settings	<ul style="list-style-type: none"> • Resolved an issue that prevented the Admin from deleting Groups from eSignature Roles

Release Notes for Version 1.1.154

Release Date: Feb 15, 2023

Improvements and Addressed Issues:

ViPER Platform	<ul style="list-style-type: none"> • Implemented Flow Cell Zeroing Counter • Implemented ability to delete Methods within ViPER • Implemented a brief stoppage at 100 microns before moving to absolute zero whenever a movement exceeding 1 mm is performed to better ensure hardware reliability • Implemented Firmware version 4.03.05 • Improved the 3 mm Flow Cell naming convention to be more accurate in the report by ensuring it doesn't include "Non-GXP" • Resolved an issue that prevented Read-Only mode from opening when no Cary was detected • Improved reliability of LDAP authentication • Resolved an issue that prevented Flow Cell unloading from being completed
Quick Kinetics	<ul style="list-style-type: none"> • Resolved an issue that prevented the System Suitability Adapter from being loaded • Resolved an issue that prevented a method from being run with a Flow Cell life cycle between 50—100% • Improved performance of slope selection during multi-wavelength runs
Quick Slope	<ul style="list-style-type: none"> • Resolved an issue that saw the averages being incorrectly tabulated whenever Reps exceeded a count of 5
Quick Survey	<ul style="list-style-type: none"> • Improved functionality of Export Data feature
Manual Controls	<ul style="list-style-type: none"> • Resolved an issue that prevented the user from printing the report as a PDF
Validate VPT	<ul style="list-style-type: none"> • Improved KRCr207 testing to properly reflect the correct units of measurement for Standard Deviation
SecureVPT™ Settings	<ul style="list-style-type: none"> • Implemented secure points for Acceptance Criteria and Slope Analysis

Release Notes for Version 1.1.180

Release Date: May 5, 2023

Features and Functions Released:

Kinetic Survey	<p>A spectral application for Flow devices that conducts step scans of multiple wavelengths.</p> <p>Major Features include:</p> <ul style="list-style-type: none"> • Quick and Fixed Slope modes • Extinction coefficient support • Automated and optimized spectral scans at variable pathlengths • Multiwavelength slope cross-section inputs
----------------	---

Improvements and Addressed Issues:

ViPER Platform	<ul style="list-style-type: none"> • Improved Acceptance Criteria to include User Result and display as pass/fail within the resulting report • Implemented the display of the Home Index Value within Core • Optimized zeroing routine for FlowVPX to better ensure hardware reliability • Updated method parameters to no longer accept Wavelengths with decimal values • Implemented Firmware version 4.05.05 • Improved Time Stamp functionality to properly record month transitions • Resolved an issue that prevented Baseline Correction from functioning properly 				
Quick Kinetics	<ul style="list-style-type: none"> • Resolved an issue that prevented Validation Check and System Suitability data 				
Quick Slope	<ul style="list-style-type: none"> • Resolved an issue that prevent Users with Data Acquisition permission from being able to save reports 				
Manual Controls	<ul style="list-style-type: none"> • Resolved an issue that prevent Multiwavelength Quick Reads from being run when 4 or more wavelengths are employed 				
AAV for Solo	<ul style="list-style-type: none"> • Implemented the Slope Analysis Tool • Resolved an issue that prevented the Gene Therapy tab for updating the sample trace name correctly 				
SecureVPT™ Settings	<ul style="list-style-type: none"> • Implemented Tool Tips for each selection within Feature Access • Modify Wavelength Settings Secure Point added to Quick Slope, Quick Kinetics, and Quick Survey 				
Hardware Supported	<table border="0"> <tr> <td data-bbox="365 1671 846 1709">FlowVPX</td> <td data-bbox="849 1671 1520 1709">[IN-VPX-FLOW-A]</td> </tr> <tr> <td data-bbox="365 1713 846 1745"> <ul style="list-style-type: none"> • 1.5 inch Flow Cell </td> <td data-bbox="849 1713 1520 1745">[OC2017]</td> </tr> </table>	FlowVPX	[IN-VPX-FLOW-A]	<ul style="list-style-type: none"> • 1.5 inch Flow Cell 	[OC2017]
FlowVPX	[IN-VPX-FLOW-A]				
<ul style="list-style-type: none"> • 1.5 inch Flow Cell 	[OC2017]				

Release Notes for Version 1.1.181Release Date: **May 23, 2023****Improvements and Addressed Issues:**

ViPER Platform	<ul style="list-style-type: none">Resolved an issue that prevented a user from registering ViPER Software with a SoloVPE deviceResolved an error with report handling when reports would outnumber the collected number of runs
Validate VPT	<ul style="list-style-type: none">Resolved an issue that prevented users from entering wavelengths with decimals in vProtocol

Release Notes for Version 1.2.136 **Release Date: Dec 15, 2023**

Improvements and Addressed Issues:

ViPER Platform	<ul style="list-style-type: none"> • Implemented FlowVPX Firmware Version 4.06.19 • Implemented support and functionality for Beams System • Resolved an issue that resulted in unloaded FlowVPX devices occasionally emitting a siren like sound at core startup • Implemented Backlash Correction • Improved ViPER installation to automatically include necessary drivers/dependencies • Improved reliability of time zone conversion within reports and logs • Resolved an issue that prevented the VPX from returning to the Home position following the Loading Procedure’s conclusion • Resolved a zeroing error within core that prevented the VPX from returning to the Home position when initiating the Unloading Procedure • Resolved an issue with the Hide function that caused the Method Input Panel to remain hidden • Improved error handling when the System Suitability Adapter is incorrectly loaded • Updated the order of the Loading Procedure steps to be consistent with all supported Flow Cell types • Implemented Multi-Linear and Dual Linear Scatter Correction for both Quick Kinetics and Quick Slope applications
Quick Kinetics	<ul style="list-style-type: none"> • Resolved an issue that prevented Baseline Correction from functioning properly with Quick Slope Mode methods • Resolved an issue that prevented the Loading Procedure from being resumed if exited prematurely • Resolved an issue that compromised data collection for devices in a preloaded state at start up
Quick Slope	<ul style="list-style-type: none"> • Resolved an issue that saw the incorrect method name being displayed in the report
Manual Controls	<ul style="list-style-type: none"> • Resolved an issue that prevented Quick Scans from ending properly
Validate VPT	<ul style="list-style-type: none"> • Improved accuracy of the System Suitability acquired value and variance when multiple runs are performed • Resolved an issue where the Flow Cell Status would fail to update when initiating System Suitability • Implemented vProtocols for use with Beams System • Resolved an issue that prevented the System Suitability Adapter from being loaded in the application

SecureVPT™ Settings	<ul style="list-style-type: none"> Improved database stability to prevent retention of previously set roles Resolved an issue that prevented the preview for pending “Save a Method” eSignatures from being displayed for Reviewers 																
Hardware Supported	<table border="0"> <tr> <td>FlowVPX</td> <td>[IN-VPX-FLOW-A]</td> </tr> <tr> <td> <ul style="list-style-type: none"> 2.0 inch Flow Cell </td> <td>[OC2012]</td> </tr> <tr> <td>Beams System</td> <td>[SYS-BEAM-FX1]</td> </tr> <tr> <td> <ul style="list-style-type: none"> Controller </td> <td>[IN-BEAM-FX4-VPC]</td> </tr> <tr> <td> <ul style="list-style-type: none"> 260 nm Source </td> <td>[IN-BEAM-FX1-0260]</td> </tr> <tr> <td> <ul style="list-style-type: none"> 272 nm Source </td> <td>[IN-BEAM-FX1-0272]</td> </tr> <tr> <td> <ul style="list-style-type: none"> 280 nm Source </td> <td>[IN-BEAM-FX1-0280]</td> </tr> <tr> <td> <ul style="list-style-type: none"> 310 nm Source </td> <td>[IN-BEAM-FX1-0310]</td> </tr> </table>	FlowVPX	[IN-VPX-FLOW-A]	<ul style="list-style-type: none"> 2.0 inch Flow Cell 	[OC2012]	Beams System	[SYS-BEAM-FX1]	<ul style="list-style-type: none"> Controller 	[IN-BEAM-FX4-VPC]	<ul style="list-style-type: none"> 260 nm Source 	[IN-BEAM-FX1-0260]	<ul style="list-style-type: none"> 272 nm Source 	[IN-BEAM-FX1-0272]	<ul style="list-style-type: none"> 280 nm Source 	[IN-BEAM-FX1-0280]	<ul style="list-style-type: none"> 310 nm Source 	[IN-BEAM-FX1-0310]
FlowVPX	[IN-VPX-FLOW-A]																
<ul style="list-style-type: none"> 2.0 inch Flow Cell 	[OC2012]																
Beams System	[SYS-BEAM-FX1]																
<ul style="list-style-type: none"> Controller 	[IN-BEAM-FX4-VPC]																
<ul style="list-style-type: none"> 260 nm Source 	[IN-BEAM-FX1-0260]																
<ul style="list-style-type: none"> 272 nm Source 	[IN-BEAM-FX1-0272]																
<ul style="list-style-type: none"> 280 nm Source 	[IN-BEAM-FX1-0280]																
<ul style="list-style-type: none"> 310 nm Source 	[IN-BEAM-FX1-0310]																
Firmware	<table border="0"> <tr> <td>FlowVPX</td> <td>[4.06.19]</td> </tr> <tr> <td> <ul style="list-style-type: none"> Implemented internal error logging Enhanced motor control capability Implemented full support of 1.5 in and 2.0 in Flow Cell types Improved zeroing to reduce chance of window breaking </td> <td></td> </tr> </table>	FlowVPX	[4.06.19]	<ul style="list-style-type: none"> Implemented internal error logging Enhanced motor control capability Implemented full support of 1.5 in and 2.0 in Flow Cell types Improved zeroing to reduce chance of window breaking 													
FlowVPX	[4.06.19]																
<ul style="list-style-type: none"> Implemented internal error logging Enhanced motor control capability Implemented full support of 1.5 in and 2.0 in Flow Cell types Improved zeroing to reduce chance of window breaking 																	

Release Notes for Version 1.2.345

Release Date: Apr 22, 2024

Features and Functions Released:

ADC for Solo	<p>An application for Solo devices used to automate the testing of ADC samples to determine the antibody concentration, drug concentration, and drug to antibody ratio.</p> <p>Major Features include:</p> <ul style="list-style-type: none"> • Quick and Fixed slope modes • Automated and optimized spectral scans at variable pathlengths • Automatically calculates drug concentration, antibody concentration, and DAR value • Customizable input for drug wavelength
--------------	--

Improvements and Addressed Issues:

ViPER Platform	<ul style="list-style-type: none"> • Implemented FlowVPX Firmware Version 4.06.22 • Implemented a standardization of wavelength order within reports that exercise repeats • Improved method functionality to now include Custom Fields when saved and loaded • Improved accuracy of displayed time for collected data • Improved user selected datapoint values to be retained for added Wavelengths • Improved Search Pathlength to display the proper unit of measurement (mm) • Improved reliability of Core activation via ViPER startup with all devices • Implemented addition of R^2 Pass/Fail criteria for System Suitability tests
Quick Slope	<ul style="list-style-type: none"> • Resolved an issue that prevented replicate enabled methods from completing in full after opening existing data or when performing within an additional graph • Resolved an issue with Rep Statistics displaying incorrect values when EC is Known • Resolved an issue that prevented one for selecting traces within Slope Analysis Tool • Resolved an issue that compromised functionality when running Multi LN Scatter Correction enabled method with repeats
Quick Survey	<ul style="list-style-type: none"> • Improved exported data to include Baseline collection data
Manual Controls	<ul style="list-style-type: none"> • Resolved an issue that prevented Quick Slope measurements from functioning when repeats were enabled • Resolved an issue that prevented Peak Finder from functioning properly • Improved reporting of Quick Scan collection to ensure a 1 nm interval is displayed • Improved enforcement of vessel size limits

Validate VPT	<ul style="list-style-type: none"> Implemented additional columns within the Validate VPT Log to include both Reviewer and Approver for eSigned Quick/Coupler Check events Improved Quick Check modal and associated eSignature events to reflect both 250 and 500 nm readings Resolved an issue that prevented one from opening System Suitability Test Results Improved System Suitability Test log to be reflective of set Display Digits Resolved an issue that prevented the %RSD from being properly displayed within the System Suitability Log 						
SecureVPT™ Settings	<ul style="list-style-type: none"> Implemented option to select eSignature levels for SST within eSign App Configuration Resolved an issue that prevented the eSign table from being included on saved data and reports when eSignatures were active Improved Save a Method eSignature requirements to include changes that are made to previously saved methods 						
Hardware Supported	<table border="0"> <tr> <td>FlowVPX</td> <td>[IN-VPX-FLOW-A]</td> </tr> <tr> <td> <ul style="list-style-type: none"> 3 mm PPSU Flow Cell </td> <td>[OC2008]</td> </tr> <tr> <td> <ul style="list-style-type: none"> 1/2 in PPSU Flow Cell </td> <td>[OC2014]</td> </tr> </table>	FlowVPX	[IN-VPX-FLOW-A]	<ul style="list-style-type: none"> 3 mm PPSU Flow Cell 	[OC2008]	<ul style="list-style-type: none"> 1/2 in PPSU Flow Cell 	[OC2014]
FlowVPX	[IN-VPX-FLOW-A]						
<ul style="list-style-type: none"> 3 mm PPSU Flow Cell 	[OC2008]						
<ul style="list-style-type: none"> 1/2 in PPSU Flow Cell 	[OC2014]						
Firmware	<table border="0"> <tr> <td>FlowVPX</td> <td>[4.06.22]</td> </tr> <tr> <td> <ul style="list-style-type: none"> Increased tolerance to reduce chance of a home index error </td> <td></td> </tr> </table>	FlowVPX	[4.06.22]	<ul style="list-style-type: none"> Increased tolerance to reduce chance of a home index error 			
FlowVPX	[4.06.22]						
<ul style="list-style-type: none"> Increased tolerance to reduce chance of a home index error 							

Release Notes for Version 1.3.103

Release Date: Oct 4, 2024

Features and Functions Released:

Nucleic Acid	<p>An application for Solo devices, used for automated nucleic acid testing.</p> <p>Major Features include:</p> <ul style="list-style-type: none"> • Quick and Fixed Slope Modes • Options for ssDNA, dsDNA, and RNA <ul style="list-style-type: none"> ◇ Default extinction coefficients for each selection as well as custom EC option • Purity mode option <ul style="list-style-type: none"> ◇ Default to 260/280 wavelengths with option for 230 wavelength ◇ Automatic ratio calculation for 260/280 or 260/230 depending on selection
In-line Quick Slope	<p>An application for Flow devices used for the measurement of a single slope reading instead of continuous read with an in-line system.</p> <ul style="list-style-type: none"> • Quick and Fixed Slope Modes • Custom inputs for wavelength and extinction coefficient • Options for repeats/replicates • Option for baseline and scatter correction
AAV Flow	<p>An application for Flow devices, used for automated AAV testing with the in-line system to determine capsid titer, genome titer, and percent full ratio.</p> <p>Major Features include:</p> <ul style="list-style-type: none"> • Quick and Fixed Slope Modes • Automatic R value 260/280 ratio calculation • Default capsid extinction coefficients • DNA calculator tool to solve for EC values

Improvements and Addressed Issues:

ViPER Platform	<ul style="list-style-type: none"> • Implemented FlowVPX Firmware Version 4.06.25 • Improved dataset functionality to save method parameters across multiple datasets • Implemented Time Zone in Date Time Conversion for reports for potential DST discrepancies • Resolved an issue that prevented OPC-collected data from opening within ViPER applications • Improved Time Zone Settings to display properly when changed by user • Improved run stability to ensure collection resumes following disconnection/reconnection event • Verified system compatibility with Windows 11 (Requires Cary WinUV 5.3)
Quick Slope	<ul style="list-style-type: none"> • Improved wavelength order to reflect the order set by the user for repeat enabled runs • Improved Raw Data to be displayed correctly across multiple collection instances • Implemented “In Regression” column to Tabular Data Report • Implemented ability to open multiple data sets and append them all to a singular report

ADC	<ul style="list-style-type: none"> Improved EC Unit Selection to ensure it is tied to a created method
Quick Kinetics	<ul style="list-style-type: none"> Resolved an issue that prevented previously loaded Flow Cells from being detected if first loaded within another app when using a FlowVPE device Resolved an issue that prevented automatic transmission checks after Flow Cell loading from being recorded within the Validate VPT Log without a refresh Improved Reset All warning prompt for users with Data Acquisition roles Improved recording of automatic Transmission Tests within the Validate VPT log
Validate VPT	<ul style="list-style-type: none"> Implemented Comment Box to the Transmission Test modal at the close of the Flow Cell Loading Procedure Implemented enforcement of expiration dates for Reference Materials Improved System Suitability Test Results to include lot number and expiration date of employed Reference Material
SecureVPT™ Settings	<ul style="list-style-type: none"> Implemented Report Wizard Feature Access point Improved eSignatures for Quick Check and System Suitability events Improved Login process for users deleted from and later re-added to a Group Improved eSignature integrity when reopening data
Hardware Supported	SoloVPE PLUS [IN-VPE-SOLO-P]
Firmware	FlowVPX [4.06.25] <ul style="list-style-type: none"> Improved find zero process