

ChromaPure News

What follows is a historical record of all ChromaPure releases going back to 2009. There is a download link for the latest release only. If you wish to download an earlier release, then contact ChromaPure Support.

09-24-2020 ChromaPure 3.2 Released

New Features

Added support for the i1Pro 3.

Bug Fixes

Long Lumagen advanced auto-cal sessions were crashing. This was not an auto-cal problem per se, but was related to a conflict with ChromaPure's automatic session backup-up feature. This has been fixed.

06-10-2020 ChromaPure 3.1.20 Released

Enhancements

Added RGB Line option to grayscale module

The Color section of the Performance Module has been formatted to reflect the colors being measured.

Added resolution to grayscale/gamma spinners in the Signal Generator Control for the Lumagen Pro. This enhances the user's ability to make precise edits at very low grayscale levels.

Bug Fixes

When switching between external and Built-in Signal Generator the defaults test pattern would be black instead of white.

When selecting 25% Saturation in the Color Management module the error chart would not record data

02-14-2020 ChromaPure 3.1.19 Released

New Features

Added support for SpyderX meter

Included support for Minolta CL-500 meter

Added support for Spanish language

Added support for disc-based DolbyVision calibration

Enhancements

Added support for the P3 colorspace in the Lumagen Pro

Adjusted Lumagen auto-cal to accommodate Lumagen Pro's switch non-linear light

Bug Fixes

Fixed problem in which sRGB gamma failed

06-19-2019 ChromaPure 3.1.19 Preview Released

Download the ChromaPure 3.1.19 Preview Release

This fully functional preview release adds support for the SpyderX colorimeter. See the latest Test Center article for a full evaluation of this important new meter.

04-12-2019 ChromaPure 3.1.18 Released

New Features

Added support for Adobe RGB gamut.

Added the ability to specify a custom white point.

Enhancements

Added a Compact display mode to the Options module that collapses the double-spaced color-picker in the modules.

Add support for 25% Color Intensity.

Added support for 25% Saturation in the Color Management module.

Improved autocal accuracy.

Updated Excel Report to support BT.1886 and sRGB gamma.

Redesigned Raw Data module to include a color picker.

Bug Fixes

Resolved a variety of AccuPel 5000/6000 setup issues.

Fixed a problem whereby the Custom Report calculated contrast Incorrectly.

Fixed a problem with the APL windows not working for Accupel 5000/6000.

Resolved a bug with the French language option.

12-27-2018 ChromaPure 3.1.16 Released

New Features

Added support for French language. Additional language support will be offered in subsequent releases.

Replaced the configuration file with a database. We believe that this will increase the stability of the application substantially by eliminating config file corruption.

09-05-2018 ChromaPure 3.1.16 Beta

Bug Fix

We discovered a bug with 2020/SDR auto-cal using the Lumagen Pro that reduced the accuracy of the corrections. This has been fixed.

8-22-2018 ChromaPure 3.1.15.28 Released

Bug Fixes

We resolved some minor issues with the MadVR implementation.

We fixed a problem in the Performance module in which the application would stall or throw an exception when generating magenta test patterns when 25% saturations was selected.

8-10-2018 ChromaPure 3.1.15 Released

New Features

Added support for MadVR test patterns. Use these test patterns as you would ChromaPure's Built-in test patterns. MadVR can generate HDR test patterns for supported video cards/operating systems.

Supported systems include:

Video Cards

- AMD: Polaris based (or newer)
- Nvidia: Pascal based (or newer)
- Intel: Kaby Lake (or newer)

Operating System

- AMD: Windows 10
- Nvidia: Windows 8 and 10
- Intel: Windows 10 (most recent build)

Bug Fixes

The following issues have been fixed.

The HDR Report would crash whenever "Calibration Disc" was selected as the Test Pattern Source. This is because the report was configured for use with HDR auto-calibrate only and was expecting an external signal generator. We have now developed two versions of the report, one for manual calibrations that appears when you click HDR Report in the Reports module along with the original report that appears at the end of an HDR auto-cal session. NOTE: The CIE chart in the manual report uses data from the 50% Saturations points in the Color Gamut module. This allows the user to select Rec. 2020 50% saturation targets. There is no need to measure other levels of saturation.

The ColorChecker dE values were too high when in HDR mode. This was because ChromaPure was expecting 100% intensity colors when 50% intensity colors is the standard for HDR color test patterns.

After importing custom targets into the Raw Data module if you would navigate away from that module and then return, the targets would disappear.

7-21-2018 ChromaPure 3.1.14 Released

Bug Fixes

We have resolved all of the problems with the Performance model.

6-29-2018 ChromaPure 3.1.13 Released

New Features

We discovered a critical bug in the new Performance module, so rather than hold up this release we removed it. The corrected module will be re-released shortly.

Enhancements

We made the amplitude of the gamma curve for HDR10 - Projector user-selectable in Options, Gamma to accommodate projectors of varying output capabilities. Use the highest value that allows you to get the correct luminance value at 50% while leaving some extra headroom for tone mapping.

We simplified the workflow for Lumagen LUT auto-cal.

Bug Fixes

The following bugs have been fixed.

When using the gamut overlay feature the tertiary saturations were based on the overlay gamut, rather than the reference gamut.

Attempting to access the Color/Tint module resulted in a fatal exception.

Opening the Options module after loading an older session file resulted in a fatal exception.

6-4-2018 ChromaPure 3.1.12 Released

Bug Fixes

With the addition of a 20% saturation sweep, we created some errors for the legacy 25% sweep. These have been fixed.

5-30-2018 ChromaPure 3.1.11 Released

New Features

We have added a Pre and Post-Calibration Performance module. This module contains four sub-modules: Grayscale dE, Grayscale CCT, Gamma, and Color. The user can select multiple passes to compare the performance of several display picture presets. The passes are named and color-coded on a chart and data is displayed in a grid.

We have added a screen capture functionality that allows the user to capture screenshots of the entire screen or individual charts.

Enhancements

We added support for HDR and Rec. 2020 to the Quantum Data 780E signal generator along with some other *Enhancements*.

We have added 4K versions of the built-in test patterns.

We have enhanced the Color Saturations module to include a user-selectable option to use either five 20% increments or four 25% increments. Reporting dynamically detects which selection is chosen and displays the appropriate chart.

Bug Fixes

The application no longer resets measured data when changing gamma or gamut references.

The application now displays auto-cal data retrieved from a saved session file.

4-22-2018 ChromaPure 3.1.11 Beta Released

Enhancements

We added support for HDR and Rec. 2020 to the Quantum Data 780E signal generator along with some other *Enhancements*.

We have added 4K versions of the built-in test patterns.

We have enhanced the Color Saturations module to use five 20% increments instead of four 25% increments.

03-28-2018 ChromaPure 3.1.10 Released

This release fixes a critical bug discovered in 3.1.9 that could result in the loss of data.

03-25-2018 ChromaPure 3.1.9 Released

New Features

This release adds a new Spectrum module that displays the raw spectrum that is returned from a spectroradiometer and displays on a chart. Currently, this feature supports the following devices:

- X-Rite i1Pro/i1Pro 2
- JETI 1201/1211/1501/1511
- Colorimetry Research CR-250/CR-300

We have added support for laser projectors for our Display 3 PRO meter.

Enhancements

This release adds a Dark Reading button to the i1Pro setup. After the initial dark reading for an i1Pro 2 subsequent dark readings are not generally necessary. However, for the i1Pro periodic dark readings are advisable.

Bug Fixes

The following issues have been fixed.

In HDR mode the 100% saturation versions of the tertiary colors would return a NaN for the dE value.

The Meter Correction feature would be vertically cropped on 1366 x 768 laptop displays.

02-15-2018 ChromaPure 3.1.9 Beta 2 Released

This preview of 3.1.9 significantly improves Rec. 709 advanced auto-cal for both Lumagen and Lumagen Pro, especially on displays with many out-of-gamut colors.

It also simplifies running reports after an advanced auto-cal session.

02-08-2018 ChromaPure 3.1.9 Beta Released

This preview of 3.1.9 adds support for laser projectors to PRO meters. It also reduces the size of the Home page icons to make it easier to view on lower resolution screens.

01-22-2018 ChromaPure 3.1.8 Released

New Features

Added support for Lumagen Pro LUT HDR/2020 Auto-calibration. We have provided a procedures document that explains the process.

Added white pattern insertion between test patterns. This mitigates the tendency of some displays to lose luminance when screen content is insufficiently dynamic.

Added RGB/Gamma chart to Raw Data module. This allows users to perform gamma/grayscale calibration for a user-customized test patterns (e.g., LG OLEDs).

Enhancements

Lowered luminance requirement for HDR10 - Projector to accommodate more projectors.

Added options for 709, SDR2020, and HDR2020 to Color Space selector on Lumagen Pro setup.

Added luminance, saturation, and gamma information to bottom of screen.

Added information about Reference Gamut, Target Gamma, and Color Intensity to Custom Report.

Improved method for DVDO Duo grayscale auto-calibrate.

Added information about Meter Correction to exported data.

Created reports for HDR calibrations.

01-15-2018 ChromaPure 3.1.8 Beta 2 Released

This beta makes two changes from the previous beta.

It lowers the luminance requirement for HDR10 - Projectors.

The procedure for selecting HDR2020, SDR2020 and 709 colorspace has changed.

We have provided a new procedures document that incorporates the changes.

01-05-2018 3.1.8 Beta Released

LUT Rec. 2020/HDR10 Auto-calibration has been added to the Lumagen Pro.

See this procedures document for instructions.

10-11-2017 ChromaPure 3.1.7 Released

Bug Fixes

We identified several bugs in the previous release, which 3.1.7 fixes.

The application would drop data from the Color Management module when importing a previously saved .calx file.

The application would drop data from the Gamma module that included multiple gamma runs when importing a previously saved .calx file.

When selecting fL as the default luminance measurement unit, the Raw Data module would continue to show cd/m2 in some areas.

The Excel report was broken.

The application was not applying Pro corrections to the CR-100 colorimeter, and attempting to initialize the meter whose license contained Pro corrections would result in a fatal exception.

Deleting all of the data from the Raw Data module would result in a fatal exception.

Data in the Measured Color and Reference Color panels was difficult to read. We changed the color scheme to improve readability.

9-29-2017 ChromaPure 3.1.6 Released

New Features

Added the ability to calibrate to P3 targets within a Rec. 2020 gamut.

Klein K-10 users now have access to the Klein matrix corrections built-in to the meter. Also, using the Klein ChromaSurf application you can create and store your own corrections in the meter.

Enhancements

Full setup functionality has been added to the Colorimetry Research CR-100 and CR-250/300 meters.

Added Rec. 2020 capability to the Murideo test pattern generator.

We have enhanced the Grayscale Quick Report to show additional data.

We enhanced ChromaPure's error handling, which allows us to better diagnose and resolve reported problems.

Bug Fixes

Problems with the Gamut Test Report have been fixed.

The ISF Wizard has been restored (in the classic UI).

Stability problems with auto-cal (Lumagen and DVDO Duo) have been fixed.

9-12-2017 ChromaPure 3.1.6 Beta 2 Release

We had been getting intermittent reports of instability with auto-cal. As part of the 3.1.6 release, we have improved ChromaPure's error handling, and as a result of this we were able to track down the problem. This release fixes it.

6-13-2017 ChromaPure 3.1.6 Beta Release

This beta release fixes some errors with the signal generator toolbar that affect both the standard Lumagen Radiance and the Radiance Pro.

6-2-2017 Version 3.1.5 of ChromaPure Released

New Features

Auto-cal for the DVDO Duo has been enabled.

ChromaPure now supports the Lumagen Pro and HDR/Rec. 2020 test patterns.

We added support for the AccuPel 6000 signal generator.

We added a HDR10 – Projector selection to the list of available gammas. This provides the same curve as regular HDR10, but at lower luminance levels expected from projectors.

Enhancements

The ChromaPure application and calibration disc now list the colors in the saturation scale in the same order. Current owners of the disc can request a free update (download) or have a new disc mailed to them for a S&H fee of \$3.00.

Context sensitive Help has been enabled.

21-point grayscale has been enabled for Lumagen auto-cal.

Bug Fixes

This release fixes three reporting errors.

RGB grayscale charts in the Custom report now reflects 21 point grayscale when selected in the calibration session.

Reports now correctly plot the HDR gamma target line.

Three of the charts in the Custom calibration report no longer cut off data.

Known Issues

The Lumagen Manual Control Tool does not currently sync with the selected grayscale mode. To fix this just click the Reset button on the tool prior to making grayscale adjustments. The tool is automatically synced when clicking Reset during auto-cal setup.

When selecting HDR10 for the Lumagen Pro, do so after setting up the generator, but before displaying the first test pattern. HDR10 is activated only AFTER generating a test pattern.

4-23-2017 ChromaPure 3.1.5 Beta Release

The Brightness and Contrast Built-in test patterns have been modified to match the proper levels.

Initialization problems with the JETI 1501/11 have been fixed.

The target gamma line for HDR - Projector in the Gamma and Grayscale modules has been fixed.

The Slow Mode has been activated for Display 3 PRO meters.

4-14-2017 Version 3.1.4 of ChromaPure Released

New Features

The White Balance module now includes gamma information.

Users can now select a Slow mode for the i1D3. Use this feature only when measuring black level, such as when measuring contrast. This is necessary because the default AIO measurement mode will not read below 0.01 nits.

We have added support for the Quantum Data 780E signal generator.

We have added a new gamma reference, HDR10 – Projector. Use this gamma target when calibrating front projectors using HDR10.

The options module now includes a selection for Gamut Overlay. Select this option to see another color gamut superimposed on the reference gamut. This is useful when calibrating Rec. 2020. It allows you to see how the measured colors fit into other gamuts.

Enhancements

The Built-in signal generator has been adjusted to facilitate easier use. Users no longer need to rely on a madVR utility to get proper levels.

Bug Fixes

We have fixed data import problems with ChromaPure 3.0.8 data.

We have fixed an issue that affected the user's ability to scroll through the drop down list of individual test patterns for external signal generators.

We have updated the Excel report to conform to the data structures of 3.1.x.

NOTE: DVDO Duo Auto-calibration will be released soon as part of 3.1.5.

2-21-2017 ChromaPure 3.1.4 Beta Release

This 3.1.4 beta fixes some problems getting stable readings at low light levels with the i1d3 and with the proper display of the signal generator test pattern drop-down.

2-15-2017 Version 3.1.3 of ChromaPure Released

Enhancements

We have simplified the X-Rite i1D3 initialization procedure. We have eliminated auto-detect and provided the user with the ability to select 25Hz, 50Hz, or 60Hz as the sync value.

We added degamma to HDR10 which allows ChromaPure to support HDR10 using external signal generators.

Bug Fixes

Here is a list of issues that have been fixed.

There was a cluster of problems regarding importing calx session files. 3.0.8 calx files did not import correctly. The gamut data in the CIE chart is still broken. This will be fixed in the next release. All other issues were resolved.

When double-clicking calx files the application would open, but no data would appear.

Imported calx files did not show average summary data.

Imported calx files that contained auto-cal data prevented the user from accessing the data logs and full color information.

When clicking Measure All without having a meter initialized the system would generate a lengthy loop of error messages.

There was a refresh problem that occurred when changing Color Intensity. The values did not update in Color Management until the user restarted the application.

There was a refresh problem that occurred when changing the Reference Gamut. The saturations for the gamut did not update. NOTE: When changing the Reference Gamut you will lose all of the data from the previous gamut. If you want to keep this, save the data first or run a report.

Load and Save were missing from the classic UI.

The Signal Generator drop-down would not allow the user to access all of the test patterns.

1-29-2017 Version 3.1.2 of ChromaPure Re-Released

Version 3.1.2 has been released again to fix a problem with the luminance measurements of color in HDR10 mode.

01-25-2017 Version 3.1.2 of ChromaPure Released

Enhancements

We have added support for HDR color calibration. Please use 50% intensity and 50% saturation settings to calibrate HDR sources in the Color Management module.

Bug Fixes

The following issues have been resolved.

The Murideo test pattern generator did not behave normally and could cause the application to close unexpectedly.

The Lumagen and AccuPel auto-connect feature did not work for a small minority of users. We could never reproduce the problem here, so could not provide a fix. Instead, we have disabled auto-connect. Starting with this release, when setting up either of these devices you will have to manually select the correct Com port.

Running the report for Lumagen Advanced Auto-calibrate would sometimes cause the application to close unexpectedly. Even when it did run, the dE values for post-calibration color gamut were incorrect.

After initializing the meter, users would find that when subsequently navigating back to the Initial Setup page the meter's mode would be apparently set to CRT.

01-06-2017 Version 3.1.1 of ChromaPure Released

Bug Fixes

The following issues have been resolved.

The code that accommodates international regional formats was not included in the initial 3.1, which led to unexpected behavior on non-English language PCs.

Attempting to switch between the default tablet UI and vertical or horizontal versions of the traditional UI caused the application to shut down.

There was no intensity selector when the Calibration Disc mode was selected.

The Color Management module suffered from various types of instability and unexpected behavior.

12-19-2016 Version 3.1 of ChromaPure Released

This is a major release in which ChromaPure has been completely re-written on a new platform.

New Features

New tablet-like user interface. The classic interface can also be selected in application options.

Support for UHD Rec. 2020 and HDR10 EOTF.

New Screen Uniformity module.

Enhancements

Redesigned Color Gamut module.

Enhanced reporting cover page.

Enhanced Color Management module.

New Advanced Auto-cal engine.

Redesigned and simplified Meter initialization and Test Pattern generation components.

Meter Correction integrated with Meter Initialization.

Enhanced Color Management module.

Bug Fixes

The new platform allows for optimized display quality for high-resolution screens. The problems with text scaling on high res screens has been resolved.

Improved stability for auto-calibrate.

Known Issues

DVDO Duo auto-cal is not included in this build. The Duo can still be used as a signal generator and for standard calibration tasks. Duo auto-cal will be included as part of the first maintenance release in January.

05-05-2016 Version 3.0.8 of ChromaPure Released

This is a small release that addresses some workflow issues and adds support for a new JETI spectroradiometer.

New Features

Added support for the JETI 1501 spectroradiometer.

Improvements

Enhanced support for JETI 1211.

Added user selectable wait times between generated test patterns.

Explanation: Some displays require some extra time to settle in after switching test patterns. This option allows to user to increase the default wait time. This feature is set to zero by default and should only be used in special cases when explicitly needed.

Added support for signal generator intensity in session files.

Explanation: If the user saves a calx file after taking measurements with a 75% intensity, then changes to 100% intensity (or vice-versa), continues to work, and then loads the saved calx file, reporting and dE calculation will be incorrect because they will be based on the currently-selected intensity, rather than the intensity used when the file was saved. With this build the intensity is saved in the calx file and restored when loaded.

The measurement order in the Gamma module is now high to low.

For those using a signal generator, when switching between modules the test pattern now updates to reflect whatever color is selected in the active module.

Bug Fixes

The data recovery feature was not working properly and could result in loss of data after a bad shutdown. This has been fixed.

Known Issues

Switching rapidly between already-open modules using the navigation toolbar can result in a benign null fatal exception. Switching more slowly or using the tabs for navigation avoids this issue.

Please use DVDO Duo auto-cal with 100% intensity test patterns only. Support for 75% patterns will be restored in 3.1 when auto-cal in general will receive a substantial refresh.

03-18-2016 Version 3.0.7 of ChromaPure Released

New Features

Added support for the 4K Murideo signal generator.

Enhancements

These *Enhancements* involve making small changes that lessen the opportunity for error.

In Continuous mode, the user is now prevented from selecting other read modes until Continuous mode is stopped. Also, Continuous mode stops automatically whenever the user selects a different color. Continuous will have to be started again to resume readings of the new selection.

The i1D3 options panel in Application Settings has been removed and optimal settings have been hard-coded behind the scenes.

Bug Fixes

The following issues have been fixed.

When attempting to initialize a serial meter after ChromaPure has started, the system failed to update the list of available com ports.

The installation routine now requires the user to first uninstall a previous version of ChromaPure. Also, the application checks at runtime whether .Net Framework 4.6.1 is installed. If not, then the user is required to first install.

The Quantum Data 801 and 882 signal generators now generate the proper levels.

02-18-2016 Version 3.0.6 of ChromaPure Released

This small release addresses two issues that were important enough to fix now rather than waiting until 3.1. Please uninstall any previous 3.x version prior to installing 3.0.6.

The method for generating RGB values when using the 75% of Rec. 709 gamut has been changed. This pseudo-gamut can now be used throughout the application.

Some problems were identified and fixed in the Lumagen manual control toolbar.

02-12-2016 Version 3.0.5 of ChromaPure Released

This release restores missing features and fixes bugs contained in the initial 3.0 release. It also adds some fixes for long-standing issues that significantly pre-date v3.

The following features have been added, restored, or enhanced

DVDO Duo support is restored, including auto-cal

RGB and xyY Color Space modes are restored in the Color Management module

User images can be added to Custom Reports

An Application Settings icon has been added to the auto-cal screen

European users no longer have to manually adjust Windows regional format settings. ChromaPure now automatically forces U.S. formats for list separators and decimal places regardless of the settings in Windows.

ChromaPure now will scale properly on high-resolution, small size displays without user intervention. This is a temporary fix because the application simply automatically adjusts the resolution of the display downwards so that text scaling is not required. This works but results in some loss of sharpness. A permanent solution will be provided in 3.1.

We have added a new item in the File menu called "Repair Settings". Selecting this will close the application, delete the settings file, create a default settings file, and then restart the application. Selecting this option will resolve many issues if instability is apparent.

The following bugs were identified and fixed

Attempts to take measurements without initializing a meter did not display an error message.

When fL had been selected in the application, the report still showed cd/m² in the Gamma modules.

Opening the Grayscale module, closing, and then reopening resulted in a benign fatal exception.

If the user failed to click Stop when in continuous mode and navigated to a separate module, continuous mode would still be active. Continuous mode now automatically stops whenever the focus changes from one module to another.

If the user clicked the Measure All button starting anywhere other than white, then the 90% point would measure multiple times.

Reports would not update data if the report module was already open.

A few tool tips were missing.

The Pre and Post-calibration data were switched on the final Advanced Auto-cal page.

Luminance correction was missing from the Contrast module.

01-13-2016 Version 3.0.4 of ChromaPure Released

New Features

The Gamma module now displays target luminance data in addition to target gamma.

All other measurements are now disabled until a white reference is first measured.

NOTE: There are three white references (pre-calibration, post-calibration, and calibration). If you measure a white reference in a pre-calibration module, then this number spreads to the other pre-calibration modules only. Reference white must be measured again for calibration and post-calibration. You may always re-measure any of these at any time to update the affected calculations.

Bug Fixes

The 75% of Rec. 709 gamut @ 75% intensity had an error in a couple of the reference colors.

The dE chart in ColorChecker did not clear when clearing all data in the Color Gamut module.

01-13-2016 Version 3.0.3 of ChromaPure Released

This is a bug fix release only for version 3.0. All licensed users of 3.0 are entitled to this release free of charge. There will be one additional bug fix release in a couple of weeks.

Bug Fixes

The following bugs have been fixed

Using Meter Correction caused the application to report incorrect dE values for white

The AccuPel generator was not initializing properly

The APL and small window pattern sizes for built-in generator were not working

The Rev B i1D3 meter was not initializing properly

Any license with a large number of meters was not displaying fully on the Home page

Several meters were not detecting the serial number

Accessing the built-in drop-down patterns would cause a fatal exception

The i1D3 meter options in Settings were disabled

The DVDO TPG generator was missing from Professional Licenses

The test patterns were incorrect when using the 75% of Rec. 709 gamut.

12-30-2015 Version 3 of ChromaPure Released

This is the most comprehensive upgrade in the product's history. ChromaPure has been completely redesigned to make it more powerful and even easier to use.

Upgrade Pricing from version 2.x is \$79 for existing users. Those who purchased ChromaPure on or after December 18, 2014 are entitled to a free upgrade from version 2.x.

ChromaPure 3 requires Microsoft .Net Framework 4.6.1 and Windows Vista or newer.

Download Microsoft .Net 4.6.1

New Features

New streamlined and efficient user interface

Enhanced user-configurable reporting

User-defined automated measurements

Multiple gamma runs on one chart for comparison

12/21 pt selectable Lumagen LUT auto-calibrate

User-selectable dynamic range for grayscale and gamma

dE method selectable by module

System-wide gamma, select once and apply everywhere

Calibration Templates for unlimited customized measurements and reporting

Support for sRGB gamma

Support for Rec. 2020 gamut

06-15-2015 Version 2.5.8 of ChromaPure Released

New Features

Added support for the Colorimetry Research CR-250 spectroradiometer

Added support for the Spyder 5 colorimeter

Added support for the Display 3 II colorimeter*

Added a control panel in the Options module for the Display 3 colorimeter that provides the user with extensive control over the performance of the meter.

Added luminance to the Meter Correction module.

Bug Fixes

Fixed a problem with the DVDO TPG signal generator outputting PC values in some modules.

* The Display 3 II is a Rev B of the X-Rite i1D3 colorimeter. This meter includes new hardware/firmware features that support refresh rate synchronization (must use the AIO read mode). This requires the user to point the meter at a 100% test pattern during initialization.

01-12-2015 Version 2.5.7 of ChromaPure Released

Improvements

We changed the "Reset to Factory Default" option in Lumagen auto-cal to work in the YCbCr mode.

Bug Fixes

We fixed a problem with the "Reset calibration settings to default" in Lumagen auto-cal that would result in inaccurate pre-calibration values.

01-09-2015 Version 2.5.6 of ChromaPure Released

This version of ChromaPure simply fixes a problem with the grayscale component of Lumagen auto-calibrate.

12-18-2014 ChromaPure 3.0 Announced

ChromaPure 2.5.5 will be the last 2.x release. ChromaPure 3.0 will be released in the first quarter of 2015. It will provide the most substantial upgrade in ChromaPure's history. Starting today (12-18-2014), anyone who purchases a new ChromaPure license will be entitled to a free upgrade to v. 3.0 upon release. For already existing customers, ChromaPure 3.0 will be priced at \$79.

Note: (12-23-2014) We just released 2.5.5.1. This contains a few critical stability and performance updates. Because this is the last 2.x release, we recommend that all ChromaPure users upgrade to this version.

12-18-2014 Version 2.5.5 of ChromaPure Released

ChromaPure 2.5.5 Release Notes

2.5.5 primarily fixes bugs and refines previously released features.

New Features

We have added an OLED (White) mode to the list of PRO corrections that are used with the Display 3 PRO and other colorimeters.

Improvements

We increased the precision of the DVDO TPG video generator by upgrading from percentage values to 16-bit video code values.

Advanced Auto-calibrate now detects the specific Lumagen model and activates only those color matrix sizes supported by the model.

The speed of grayscale/gamma calibration in Lumagen auto-cal has been increased.

We provided a new reset option to Lumagen auto-cal that leaves the grayscale/gamma setting unchanged for those who prefer to do this manually. If you select this option, then grayscale/gamma auto-cal is not available.

We added an option to the Gamut Test Report that allows use without a signal generator. The user will provide test patterns from a Blu-ray or DVD disc and the application will automatically take measurements at user-defined intervals.

We added a progress bar to the Gamut Test Report.

The window size used in the Built-in test patterns was reduced to about 6% to avoid gamma errors near 100%.

Bug Fixes

We have fixed the initialization problems with the i1Pro 2.

We have fixed the Front Projection mode initialization problem with the i1D3.

We have fixed a problem with the AccuPel in which it would freeze after displaying test patterns selected from signal generator toolbar.

We fixed gamut errors in Advanced Color Management when EBU was selected as the reference gamut.

We fixed formatting errors in the Advanced auto-cal dE report chart that would show numbers exceeding 100%.

We fixed the white reference value the in ColorChecker module when using the Built-in test pattern generator.

We fixed dE errors that appeared when running Advanced Auto-cal with BT.1886 selected as the target gamma.

10-01-2014 Version 2.5.4 of ChromaPure Released

ChromaPure 2.5.4 Release Notes

New Features

Added support for the Lumagen 17x17x17 (4913 colors) LUT calibration.

Added support for the Colorimetry Research CR-100 professional colorimeter.

See the article in our New Gear page about this new product.

Added support for the Minolta CL-200 colorimeter.

Added a Test Gamut report

This report is available to all ChromaPure Standard users. It measures a broad sample of the gamut (215 colors) and generates a report that describes performance throughout the gamut. Use this to determine whether the display requires an LUT calibration. Running this report only requires an active meter and signal generator. The built-in signal generator may be used.

08-08-2014 New AccuPel Firmware Available

New USB codes that call User Colors are now available. These new codes greatly reduce the traffic between the generator and the controlling computer. The result is that sequential User Colors can be

displayed MUCH more rapidly than before. This is particularly useful for LUT calibrations that require hundreds or even thousands of sequential colors.

The commands available via the remote control and OSD have been expanded to include the ability to select and display User Colors in 8-bit code values and 10-bit code values. This allows the user to display any desired color with much greater precision. Previously, only RGB values in percentage increments were available from the remote control and OSD. You will also be able to select percentage values, 8-bit code values, and 10-bit code values as the desired default for the OSD.

See the Accupel page for a download link.

06-19-2014 Version 2.5.3 of ChromaPure Released

ChromaPure 2.5.3 Release Notes

This is a small maintenance release primarily focused on improving the built-in test patterns.

New Features

We have added support for the Minolta CS-2000 reference spectroradiometer.

Improvements

The built-in test patterns now appear without any scaling at a pixel-for-pixel 1920x1080.

The internal test patterns now will appear automatically on the extended display. Just setup the extended display prior to starting ChromaPure. If you enable the extended display after starting ChromaPure, the test built-in test patterns will appear on the primary display. Just drag onto the extended display, right-click and select Maximize.

The built-in test patterns will now function in the ColorChecker module like any other test pattern. You no longer have to click twice for the test pattern to appear.

Bug Fixes

We fixed a problem with the DVDO TPG signal generator not working properly in the Advanced Color Management module.

05-18-2014 Version 2.5.2 of ChromaPure Released

ChromaPure 2.5.2 Release Notes

New Features

We are now providing an optional add-on (\$199), the ChromaPure ISF Calibration Wizard. This guided wizard takes the user through all of the steps necessary to achieve an ISF certified calibration.

We have added a suite of critical test patterns to the built-in signal generator. Note: For the Brightness and Contrast test patterns to function properly, the workstation's video card must be setup to output in the video range of 16-235. Consult your video card documentation for how to do this.

We have added a new chart to the Lumagen LUT advanced auto-calibration report.

We added some new pre-calibration options to Lumagen LUT advanced auto-calibrate.

Improvements

This release includes a general performance enhancement increasing speed and reliability.

Bug Fixes

The chart in the Gamma module has always been unstable when used in continuous mode. We tried to fix this several times, never with total success. We have now completely redone this chart from scratch using custom in-house technology. This seems to have fixed the problem, and the Gamma module can now be used in continuous mode without fear that the main chart may crash.

We fixed a bug in the White Balance module in which the RGB chart did not display the correct values when using the DCi reference gamut.

We fixed a problem whereby the average dE value reported in the Pre/Post-Calibration Grayscale modules did not include the 10% level.

04-03-2014 Version 2.5.1 of ChromaPure Released

ChromaPure 2.5.1 Release Notes

New Features

Added support for the new DVDO TPG 4K Signal Generator.

Added Support for ColorChecker data to Excel Report.

Added support for switching PRO corrections and Meter Corrections on/off. Corrections are on by default.

Enhancements

Made a variety of small UI changes to the auto-cal module. To improve speed, measuring post-calibration 125/729 colors is now optional.

Users are encouraged to use Advanced Color Management and the ColorChecker modules for post-calibration reporting for 125/729 color calibrations.

Added support for Reset to Lumagen Factory Default.

Added a couple of additional test patterns to the Video Forge signal generator.

Improved repeatability for some meter modes at low light levels.

Bug Fixes

Fixed a variety of problems arising from the support of 75% of Rec. 709 as a Reference Gamut.

Fixed support for older signal generators that cannot display RGB triplets.

Fixed a problem with BT.1886 gamma in the auto-cal module. We removed the override checkboxes and replaced this functionality with the existing BT.1886 panel in the Options module.

02-12-2014 Version 2.5 of ChromaPure Released

ChromaPure 2.5 Release Notes

Improvements

Advanced Auto-Calibrate. We have completely re engineered the Lumagen grayscale/gamma and 125/729-point color auto-calibration capability. The new engine is vastly improved over its predecessor. **Speed:** Before a 729-point color calibration would take about 3 hours. The new engine completes the process in as little as 30 minutes. A 125-point color calibration now requires only about 6 minutes. **Grayscale and gamma** will now complete in 3-5 minutes. These estimates assume a Display 3 or Display 3 PRO colorimeter. A Klein K-10 will finish even faster.

Precision: Grayscale now results in dE values below 1.0. The gamma response can often look like it was drawn by a ruler. Color dE values will also typically fall well below 1.0 dE.

Reliability: The new method is much more reliable and requires less maintenance from us and fewer technical support requests from users.

It is now possible to get a nearly perfect grayscale, gamma, and 3D multipoint color calibration in less than 15 minutes. Current users of ChromaPure Advanced Auto-Calibrate will receive this upgrade free of charge.

This add-on is only available to owners of the Lumagen Radiance line of video processors. The Lumagen Mini 3D supports 125-point color calibration and the 20xx series supports up to 729-point color calibration.

ColorChecker. We have added support for 14 skin tones from ColorChecker SG and two custom skin tones developed in house. Added to the two skin tones already included in the standard ColorChecker, ChromaPure now offers the ability to measure and evaluate 18 separate skin tones.

We made some minor improvements to ChromaPure's VideoForge signal generator support.

We added a Save button to the Lumagen Video Processor Control Toolbar. This makes it easier to save the changes made using the toolbar.

Bug Fixes

The DVDO Duo Auto-Calibrate routine was not resetting the color points to their default at the beginning even when that option was selected. This has been fixed.

The Lumagen 8-point color auto-calibration was broken in a previous version. This has been fixed.

12-20-2013 ChromaPure Video Calibration Disc now available

A calibration disc optimized for ChromaPure users is now available. This disc is free with Display 3 PRO bundles and available as a standalone for \$25.

12-10-2013 Version 2.4.5 of ChromaPure Released

ChromaPure 2.4.5 Release Notes

New Features

The 75% of Rec. 709 gamut is now available throughout the software, including for reporting.

We added support for 5% and APL test pattern windows to the Lumagen video processors.

We have added support for the Video Forge signal generator. To use this you must run the free Proxy software Fiddler (<http://fiddler2.com/>) in the background.

Enhancements

We have improved the methods used for Lumagen auto-cal that will especially enhance performance for displays with initial large measured errors.

We added support for Measurement Smoothing in the Meter Correction module.

Bug Fixes

We have fixed the Measure All macro in the Advanced Color Management module.

We have improved the stability of the Gamma module when using Continuous mode.

09-16-2013 Version 2.4.4 of ChromaPure released

ChromaPure 2.4.4 Release Notes

New Features

Added support for the Lumagen 729-point gamut calibration. This feature is available for free to existing Advanced Auto-calibrate users. The 729-point calibration is only available on the Lumagen Radiance 20xx series.

Enhancements

Improved the scaling for the graphs on the Excel reports and also added support for reporting of BT.1886 gamma.

08-05-2013 Version 2.4.3 of ChromaPure released

ChromaPure 2.4.3 Release Notes

New Features

Added support for the 5% grayscale point (12-point grayscale) to the Lumagen Video Processor Control Toolbar. This makes manual adjustment of the sometimes critical 5% grayscale/gamma point much easier.

Added support for a new version of ChromaPure--ChromaPure Lite. This version of the software offers fewer features than the standard version at a lower price point (\$99).

Improvements

Selectively adjusted the aggressiveness of the Lumagen auto-cal grayscale routine. Overly aggressive corrections had resulted in unsatisfactory results at the low end of the grayscale.

Improved the interaction between grayscale and gamma in the Lumagen grayscale auto-calibration corrections.

Added interactive checks to the Lumens Calculator. This prevents users from attempting to calculate a value without first entering all of the necessary data.

Added an interactive check to prevent a fatal exception when the user attempts to take a measurement without first initializing a meter.

Added an interactive check to prevent a fatal exception when the user attempts to take a measurement with signal generator support without first properly setting up a signal generator.

Bug Fixes

Fixed problems with the proper implementation of BT.1886 gamma in the ColorChecker Module.

Fixed a problem with Lumagen auto-cal in which the Echo command would not be turned off prior to the start of the calibration. Failure to disable the Echo feature prior to running auto-cal would produce unsatisfactory results.

05-30-2013 Version 2.4.2 of ChromaPure released

ChromaPure 2.4.2 Release Notes

Fulfilling one of the most often-requested features, ChromaPure now supports the retail version of the X-Rite i1 Display Pro colorimeter. The retail version of this popular instrument is sold through regular retail channels, such as Amazon.com, and works with X-Rite's i1 Profiler software.

05-19-2013 Version 2.4.1 of ChromaPure released

ChromaPure 2.4.1 Release Notes

New Features

We have added support for BT.1886 gamma transfer function to the Gamma module. You must enter the 100% white and video black data in the Options panel to get an accurate gamma response.

We have added an Excel-based report to the Color Checker module, including support for pre and post-calibration data.

We have added support for selectable gamma (including BT.1886) to the Color Checker module.

We have added support for the 4K Quantum Data 804a signal generator.

Improvements

We have simplified the test pattern generation/measurement functions in the Color Checker module. One click now displays a test pattern and takes a measurement.

We have added support for 75% stimulus test patterns to both the Lumagen auto-calibrate feature and the Lumagen Video Processor Control Toolbar.

We have added a Gamma Factor selector to the Lumagen Video Processor Control Toolbar to allow for easy across-the-board adjustments of gamma.

We have added the ability to use Auto-Advance when beginning measurements at 10% or 20% stimulus in the Pre/Post-Calibration Grayscale module.

Repeatability and speed with low-light measurements when using the Display 3 colorimeter has been further improved.

We have added adjustable increments to the Video Processor Control Toolbar to allow for both smaller and larger adjustment increments.

We have adjusted the layout of the auto-calibrate module to fix problems with selectable options being cut off and rendered invisible.

We have added support for custom colors to the Quantum Data 780 and 804a signal generators. Both signal generators can now be used in the Advanced Color Management, Color Checker, and Color Management (when selecting the 75% of Rec. 709 gamut) modules.

We have enabled a manual mode on the JETI 1211 reference spectroradiometer. This allows the user to manually select a desired refresh rate of the target display. However, for most applications we recommend that you continue to use the sync mode.

We have added additional test patterns to the AccuPel Signal Generator Toolbar.

We have added a Reset button to the Raw Data module that allows users to clear out data without having to close and then reopen the module.

We have enhanced both the layout and the user options for the Excel Calibration Report.

Bug Fixes

Several problems were fixed with the Detailed Report that arose as a result of adding 0% to the Pre and Post-Calibration Grayscale modules. The report will no longer return a Fatal Exception when 0% is not read. Also, several formatting issues were resolved.

We fixed some level errors with the DVDO Duo and AccuPel signal generator when using the 75% of Rec. 709 Gamut in the Color Management module.

After using the AccuPel signal generator with the Advanced Color Management module, white could be reset to a different color. This has been fixed.

Known Issues

When taking continuous measurements in the Gamma module using the BT.1886 gamma transfer function, you may see the target line revert to the default 2.22 level at the stimulus level being measured. This will be fixed in a few days in a maintenance release.

03-19-2013 Version 2.4 of ChromaPure released

ChromaPure 2.4 Release Notes

New Features

We have added a new Manual Adjustment Tool for the DVDO Duo. You can now make adjustments to grayscale, gamma, and color gamut using the Duo's CMS functions from within ChromaPure without having to use the remote control. This tool also allows users to import/export calibration profiles and reset settings to default.

We also include a beta version of the same Manual Adjustment Tool for the Lumagen Radiance. Currently, color calibration only functions at 100% stimulus. We will release an updated, final version in a few weeks.

We have added an illuminant D65 ColorChecker. This is a useful tool for determining how accurately your display renders natural colors.

We have re-engineered standard Auto-Calibrate to use the same algorithms used in Advanced Auto-Calibrate. This approach is more accurate, reliable, and more easily maintained. For Lumagen 8-point color users, please use 100% stimulus only until we make some small changes related to the Manual Adjustment Tool mentioned above. 125-point users are unaffected.

We have added a new comprehensive Excel-based report to support Advanced Auto-Calibrate. This report samples the same suite of 24-colors as employed in the Advanced Color Management module.

We have substantially upgraded the Conversion Utility Module, adding a Measure button and a set of RGB sliders that allows a user to select any 8-bit color as an RGB triplet. That color will display on screen.

Small windows are now supported by the AccuPel DVG-5000, Lumagen Radiance, and DVDO Duo signal generators. These may be useful when calibrating plasma displays.

The precision with which the AccuPel DVG-5000 renders user colors has been increased substantially by calculating those colors in discreet code values rather than percentages. This added precision is available for both 8-bit and 10-bit color.

The Pre and Post-Calibration modules now include support for black level. This allows users to display pre and post-calibration black level and contrast ratio data in both the Detailed report and the Excel report. Users can skip a 0% reading if preferred.

When using the Display 3/Display 3 PRO colorimeter in Plasma mode the application now automatically averages low-light single readings. (Continuous readings already employ averaging so these measurements are not affected.) This substantially improves repeatability. However, it also means that single low-light readings (0%-20%) will be noticeably slower.

Bug Fixes

Some of the colors when using the constant APL mode in the AccuPel were wrong. This has been fixed.

The dE calculations in the Advanced Color Management module at levels of stimulus other than 100% were wrong. This has been fixed.

The gamma calculation at 75% in the Pre/Post-Calibration Grayscale module had been calculated incorrectly. This is fixed.

Auto-Calibrate was adjusting 5% and 10% grayscale levels correctly in the Lumagen, but it was not setting the Lumagen menus to correspond with this selection correctly. This has been fixed.

02-23-2013 New pricing for DVDO Duo and Duo Auto-Calibrate packages

See the DVDO Duo Video Processor and DVDO Duo Auto-Calibrate Bundle pages for details.

02-13-2013 New firmware for the AccuPel DVG-5000

See the AccuPel page for a free firmware update. This update adds support for user-defined grayscale and color window sizes and user-defined checkerboards. See the Support tab on the AccuPel page for details.

11-13-2012 Version 2.3.2 of ChromaPure released

ChromaPure 2.3.2 Release Notes

New Features

Enhanced Support for DVDO Duo Video Processor. The Duo now supports window and field test patterns, 5% grayscale test patterns, and colors at multiple saturations and levels of intensity. You can now use the Duo with the Advanced Color Management module and the 75% of Rec. 709 Gamut in the Color Management module.

The Plasma mode now incorporates a new burst read mode provided by X-Rite that improves repeatability at low light levels on plasma displays. Our tests show that single readings on plasmas have very good repeatability down to 20% stimulus. To get good repeatability below that you may need to use Measurement Smoothing (but not on auto-cal). Continuous readings are fine at any level.

Bug Fixes

Some of the colors when using the constant APL mode in the AccuPel were wrong. This has been fixed.

The dE calculations in the Advanced Color Management module at levels of stimulus other than 100% were wrong. This has been fixed.

The gamma calculation at 75% in the Pre/Post-Calibration Grayscale module had been calculated incorrectly. This is fixed.

Auto-Calibrate was adjusting 5% and 10% grayscale levels correctly in the Lumagen, but it was not setting the Lumagen menus to correspond with this selection correctly. This has been fixed.

10-23-2012 Version 2.3.1 of ChromaPure released

Please read the Auto-Calibrate Usage Notes .

ChromaPure 2.3.1 Release Notes

New Features

100%, 75%, and 50% stimulus are now selectable in the Advanced Color Management module, as announced in 2.3.

Enhancements

The Auto-Calibrate module has been substantially redesigned, offering the following *Enhancements*.

Gamma is now selectable and applies to both grayscale and color. Users may select a fixed power law value from 2.2 through 2.6 or BT.1886, which calculates the power law values at each level of stimulus depending on the display's peak output and black level.

Grayscale and Gamma auto-calibration have been consolidated and can no longer be run independently.

Grayscale/Gamma auto-calibration now includes a 10% and 5% increment option for Lumagen users.

The selectable reference gamut now applies to both to standard color gamut and 125-point calibration.

dE is user-selectable independently for grayscale, color gamut, and advanced color gamut (125 point).

Advanced auto-calibration begins by automatically resetting all color gamut values and turning off echo in the Radiance. The active configuration is also automatically saved upon completion.

The Number of Passes option in the 125-point calibration has been removed. One pass is sufficient for good results.

Bug Fixes Wait times have been increased for pre and post-calibration measurements to resolve reporting problems.

The wait time for reference white in the 125-point calibration has been increased to resolve problems with lowered luminance levels.

Reference white in the 125-point calibration now generates the same regardless of how signal intensity was setup in the signal generator.

09-06-2012 New firmware for the AccuPel DVG-5000 is available

You may download a firmware update for the DVG-5000 that adds two *New Features*, user-defined levels for the surround in window test patterns (previously they were all black) and the ability to turn on a single color (RGBYCM) that is then applied to all of the gray test patterns. This effectively adds hundreds of new test patterns. Both features are accessible in the AccuPel menu. The user-defined window surround is now used in ChromaPure to create constant APL windows, which may be useful for plasma calibration.

09-06-2012 Version of 2.3 of ChromaPure released

Version 2.3 will be available for download shortly when a production version of the Lumagen firmware that supports the 125-color calibration becomes available.

ChromaPure 2.3 Release Notes

New Features Advanced Auto-Calibration. Using a Lumagen processor this new feature allows calibration of 124 colors* throughout the Rec. 709 color space. It is an optional enhancement to the standard auto-calibration add-on and sells for \$229 for new users and \$79 as an upgrade for existing auto-calibrate users or as an add-on to ChromaPure Professional (Standard auto-calibrate is included for free in ChromaPure Professional).

Support for APL window test patterns. AccuPel users will be able to use constant APL window test patterns for plasma calibrations.

Support for additional signal generators, including the Quantum Data 882, 801, and 701.

Support for additional meters, including the i1Pro 2 and the Minolta CS-100A.

* The Lumagen can adjust 125 colors, but one of them is 16,16,16 (black), which advanced auto-calibrate does not attempt to adjust.

Enhancements Added the ability to select 100%, 75%, and 50% stimulus to the Advanced Color Management module. Previously, levels of saturation were at 100% stimulus only. This enhancement affects the AccuPel and Lumagen signal generators and the internal test patterns.

Added the ability to select 8-bit or 10-bit YCbCr 4:2:2 test patterns from the AccuPel generator.

Bug Fixes Improved the precision of the test patterns generated by the Lumagen.

04-29-2012 New firmware for the AccuPel DVG-5000 is available

You may download a firmware update for the DVG-5000 that adds two new test patterns, a color clipping pattern and a new version of the precision pluge that uses eleven 2-step bars (6-26) in addition to the original pattern that uses eleven 1-step bars (11-21). We also now offer a standalone application from which you can access all of the AccuPel test patterns and custom colors. You can also use this application to input 10-bit custom video values. This allows for much more finely defined custom colors (64-940 vs. 16-235) and grayscale patterns than available with 8-bit video.

04-03-2012 Version of 2.2.13 of ChromaPure released

ChromaPure 2.2.13 Release Notes

Improvements Added a "Measure All" option to the Advanced Color Management module.

Added 75% field and 100% window rs-232 support for AccuPel DVG-4000 generator.

Added some minor *Enhancements* to the built-in Detailed report.

03-19-2012 Version of 2.2.12 of ChromaPure released

ChromaPure 2.2.12 Release Notes

New Features Added support for the basICColor Discus colorimeter.

Added support for the Spyder4 colorimeter.

Improvements The CIE chart used throughout the application has improved resolution.

The Detailed Calibration Report now includes a 10% stimulus grayscale value.

Bug Fixes When selecting 75% window test patterns for the Lumagen processor, the application displayed a 100% pattern for magenta. This has been fixed.

The White Balance module displayed dE values that were slightly different from those displayed in the Pre/Post-Calibration Grayscale modules. This has been fixed.

The checkerboard (ANSI) contrast tool could return an invalid contrast value of Infinity. This has been fixed.

The 75% of Rec 709 option in the Color Management module was broken. This has been fixed.

01-10-2012 Version of 2.2.10 of ChromaPure released

ChromaPure 2.2.10 Release Notes

This release provides some critical updates to the auto-calibration module. No other changes have been made.

11-11-2011 Version 2.2.9 of ChromaPure released

ChromaPure 2.2.9 Release Notes

This release adds three new modes to PRO meters, including: DLP Rear Projection

LED Front Projector-Lens

LED Front Projector-Screen

The DLP Rear Projection Mode can be added to existing licenses without recalibration (contact ChromaPure Technical Support). The LED Projection Modes can only be added to existing licenses during recalibration.

We have also improved the read performance of the Display 3 colorimeter in Front Projection-Lens mode.

10-20-2011 AccuPel DVG-5000 Professional released

AccuPel Professional is now shipping. This version includes 70 motion patterns that are ideally suited for video engineers, testers, and reviewers. It is also an invaluable tool for professional calibrators who wish to test a display's deinterlacing and/or motion resolution.

The AccuPel DVG-5000 Professional MSRP is \$1499. Deluxe users may upgrade for \$200. For details on AccuPel Professional, see our AccuPel page .

10-18-2011 Version 2.2.8 of ChromaPure released

ChromaPure 2.2.8 Release Notes

There is only one change in this build. After additional testing and customer comments, we have further refined support for the i1 Display Pro III colorimeter. This version offers a better compromise between speed and low-light repeatability. There are two things to keep in mind about this version.

Single readings below 1 cd/m² outside of auto-cal will be very slow. This is normal. All other readings should be as fast or faster than in 2.2.7

Do not use measurement smoothing with the Display 3 colorimeter. It will only slow readings down without improving repeatability. It still may be useful with other color analyzers.

10-13-2011 Version 2.2.7 of ChromaPure released

ChromaPure 2.2.7 Release Notes

New Features PRO meters now include corrections for LG LED and LCD displays.

In consultation with X-Rite, we made an adjustment to our i1 Display Pro III support that provides significantly better repeatability at low light levels.

The Color Management module now includes a CIE chart.

The Advanced Color Management module now includes support for the Lumagen Radiance as a signal generator.

When initializing the JETI 1211 spectroradiometer, the application now automatically measures and sets the cycle rate of the target display.

Bug Fixes The AccuPel signal generator would lose default settings after working in the Advanced Color Management module. This has been fixed.

Connection to the selected meter would be lost when canceling out of the Options module. This has been fixed.

If the user neglected to initialize a meter before selecting auto-advance, the system would become unstable when taking grayscale readings.

The system allowed users to select a null value from the signal generator drop-down. This has been fixed.

08-10-2011 Version 2.2.5 of ChromaPure released

ChromaPure 2.2.5 Release Notes

The resolution of problems with the PRO corrections in the previous release revealed another problem that was previously masked by the error 2.2.4 fixed. We had intentionally reduced the speed of the Display 3 readings below 10 cd/m² to improve repeatability. However, doing so disabled the PRO corrections for those readings (continuous measurements, single measurements above 10 cd/m², and all measurements with meters other than the Display 3 were unaffected). This problem has been fixed.

08-09-2011 Version 2.2.4 of ChromaPure released

ChromaPure 2.2.4 Release Notes

This release includes the following: Support for the Photo Research PR-650 in ChromaPure Professional.

During routine testing we found a bug that could reduce the accuracy of measurements of PRO meters. This has been fixed.

07-27-2011 Version 2.2.3 of ChromaPure released

ChromaPure 2.2.3 Release Notes

This release includes the following *New Features*: Support for the new X-Rite i1 Display Pro III colorimeter.

ChromaPure's AccuPel video test pattern generator support now includes all SD and HD European formats.

We improved the performance for the DVDO Duo when using auto-calibrate.

We have enhanced support for the JETI 1211 spectroradiometer.

06-03-2011 Version 2.2 of ChromaPure released

ChromaPure 2.2 Release Notes

This release includes the following *New Features*: Auto-Calibrate. This is an optional add-on that works with a DVDO Duo or Lumagen Radiance external processor. After selecting some basic options, it provides a comprehensive calibration with no user input. Auto-Calibrate is available to ChromaPure Standard users for \$149. It is free for ChromaPure Professional users. ChromaPure Professional users should contact user support for a license upgrade to enable this option.

Quick Reports. This new feature allows users to quickly and easily generate basic reports within the application that summarize data in the Pre/Post-Grayscale and Pre/Post Color Gamut modules. These single-page reports can be exported as PDF, Word, or as an image file.

5% measurement increments have been added to the White Balance and Raw Data modules.

We are offering a new version of ChromaPure, ChromaPure Plus. The MSRP for this version is \$300. It adds support for the AccuPel video test pattern generators.

04-14-2011 The AccuPel DVG-5000 video test pattern generator is shipping

See the AccuPel page for details.

04-14-2011 Version 2.1.2 of ChromaPure released

This is a maintenance release to correct a bug introduced in 2.1.1 that resulted in corrupted data when using export/import.

04-06-2011 Version 2.1.1 of ChromaPure released

This is a maintenance release to address some issues discovered in 2.1.

2.1.1 Release Notes

When using 75% Rec. 709 in the Color Management module, the application used 100% saturation as a target for green. This has been corrected.

When importing data saved from a 5% grayscale session, the luminance at 85% was incorrect. This has been corrected.

When importing a session that used meter corrections (either application-level corrections or PRO meter corrections), the user could not take new measurements. This has been fixed.

When importing a session that used meter corrections (either application-level corrections or PRO meter corrections), the data did not reflect the corrected readings. This has been fixed.

Test patterns for the Lumagen Radiance are now forced into the Adjustable mode.

03-25-2011 Version 2.1 of ChromaPure released

2.1 Release Notes

New Features

ChromaPure 2.1 will be released in just a few days. Check back here for a download link.

Check out the Demos page to see live examples of many of the *New Features* in action.

The Advanced Color Management module has been completely redesigned with significant new functionality, including: All data is saved.

All data may be exported and shared as charts, raw xyY and dE, or in an Advanced Color Management Report.

New charts showing dE and luminance performance at all points.

The ability to use information from this module to calibrate to 75% Rec. 709 in the standard Color Management module.

The method for training a field meter to match the response of a reference meter has been completely redesigned from using linear offsets to a four-color matrix calculation. This significantly improves the accuracy of readings in the Advanced Color Management module and will slightly improve accuracy throughout. This new method applies to both the Meter Offset (renamed Meter Correction) module and PRO meters (new licenses will need to be issued for these).

The signal generator feature has been completely redesigned with significant new functionality, including: Port settings for serial devices are now sticky per device chosen.

Users may now setup a signal generator, begin work, and then change the parameters of the signal generator without closing and restarting the application.

When you setup a signal generator, close the application and then restart, ChromaPure remembers your generator settings and automatically applies them. You can begin work immediately.

The Quantum Data 780/Sencore MP500 test pattern generators now support user-selectable 100% and 75% patterns and RGB/YCbCr color spaces. The Lumagen Radiance now also supports user-selectable 100% and 75% patterns.

The Pre/Post-Calibration Grayscale modules now include percentage output information and an option to display gamma data in a line chart or curve chart.

The Data Conversions module now includes a color difference section in which the user can enter reference and test colors in xyY and see dE in all of the four major dE methods and percentage errors in hue, saturation, and lightness.

The application now uses a rolling average to improve consistency for low-light readings when using the Hubble colorimeter.

White and black pluge patterns have been added to the built-in test patterns.

The Gamma module now supports readings at all 5% increments.

The Lumens Calculator has been completely redesigned. You can now enter information about lumens, lux, foot lamberts, or cd/m², provide information about the screen, and then the module calculates results in lumens, lux, foot lamberts, and cd/m².

ChromaPure now supports the AccuPel DVG-5000 video test signal generator.

Cosmetic Enhancements

The appearance of the White Balance module has been significantly enhanced.

The appearance of the Color Management module has been significantly enhanced.

Bug Fixes

The accuracy of the CIE94 dE method has been improved.

The Built-in test patterns no longer show a duplicate window.

The Display 2 meter can now be initialized after using the i1Pro without restarting the application.

Some users had experienced random freezes when using the Display 2 meter. This has been fixed.

12-16-2010 ChromaPure named best calibration software of 2010

Secrets of Home Theater and High Fidelity names ChromaPure the best calibration software of 2010.

09-20-2010 Version 2.0.3 of ChromaPure is now available

This minor update simply fixes some bugs identified in the 2.0 release.

Gamma values were not being calculated correctly in the 5% Post-Calibration Grayscale module. This is now fixed.

The context-sensitive Help button in the Advanced Color Management module was broken. This is now fixed.

An error occurred when opening the Advanced Color Management module after importing a .calx session file. This is now fixed.

The Spyder3 colorimeter was not being initialized correctly. This has been fixed.

09-13-2010 Version 2.0 of ChromaPure is now available

ChromaPure 2.0 Release Notes

New Features

A new Contrast module for measuring on/off and checkerboard contrast

A new Advanced Color Management module for measuring color at different levels of saturation and amplitude

A new Data Conversion module for converting xyY into a variety of other formats

A new option for grayscale/gamma readings in 5% increments

Support for the Spyder3 colorimeter

Support for the DVDO Duo video processor as a signal generator

Support for the Lumagen Radiance video processor as a signal generator

ChromaPure now comes in two versions-Standard (\$200) and Professional (\$999). The differences between the two versions are: The Professional version supports high-end color analyzers, including:

- Minolta CS-200 colorimeter
- Photo Research PR-655/670 spectroradiometer
- Orb Optronics SP100/JETI Specbos 1201 spectroradiometer
- JETI Specbos 1211 spectroradiometer
- Klein K-10 colorimeter (no longer supported in the Standard Version)
- X-Rite Hubble/Sencore OTC-1000 colorimeter (no longer supported in the Standard Version)

The Professional version also supports high-end signal generators, including:

- Sencore VP40x
- Quantum Data 780
- Accupel HDG-3000/4000 (no longer supported in the Standard Version)

The Professional version includes licensing for professional use (no longer supported in the Standard Version)

The Professional version includes licensing for an unlimited number of meters

The Professional version includes support for individually customized Excel-based reports

The Professional version includes licensing for Duo/Radiance auto-calibrate when available (will also be available in the Standard version as an optional add-on)

Enhanced Features

Users can now click File, New Session to clear out all existing data and start a new calibration session. The active meter connection remains.

The Raw Data module now includes an option for data export to cvs file.

Gamma module now includes RGB data.

The Color Management module now includes support for 3 color spaces: HSL, RGB, and xyY.

The Grayscale and Color Gamut modules now allow user to select any reading at any time. Auto-advance is maintained.

The Reports module brings back support for Excel-based reports. Integrated reports are maintained.

The documentation has been enhanced. In addition to context-sensitive Help in the application, we now include a printable User Manual. The PDF document will be distributed on every CD-ROM that goes out and is available on the web site for free download.

Bug Fixes

There was a bug that resulted in unpredictable results and instability with the French character set. This has been fixed.

There was a bug with the X-Rite Hubble in which it would read only ft-L. It now reports luminance in ft-L and cd/m² correctly.

Because of the placement of the OK and Cancel buttons on the Options window, they would not appear when using some video cards. This has been fixed.

Upgrade Policy

Current ChromaPure users who purchased on or after June 1, 2010 are entitled to a free upgrade to Version 2.0.

All other users may upgrade from any earlier version to 2.0 for \$59.95.

Any existing ChromaPure 2.0 user who wishes to upgrade their license to the new Professional version may do so now for an additional \$800.

07-21-2010 Version 1.3.1 of ChromaPure is now available

This release offers a few *Bug Fixes* identified in 1.3. 1.2.1 users who want to use this build should contact user support for an updated license file.

Bug Fixes

The meter mode drop-down incorrectly displayed Generic LCD as the default choice when CRT was the actual default. This has been fixed.

The DTP-94 meter used ft-L when cd/m² was selected as the default luminance.

The Pre and Post-Calibration Grayscale modules displayed grayed-out selections until activated by auto-advance. This prevented the user from selecting any desired level until all readings had been taken. The grayscale levels are no longer initially grayed out.

The Settings Report was broken. It has been fixed.

Known issues

Some international character sets cause problems requiring the user to select U.S. English in the Windows Control Panel.

The internal test patterns initially appear in duplicate. Just close the unnecessary window to proceed.

05-11-2010 Secrets of Home Theater and High Fidelity reviews ChromaPure

Read the review here

05-07-2010 Version 1.3 of ChromaPure is now available

Support for Chroma 5 PRO colorimeter. Note: Only customers who wish to use the Chroma 5 PRO colorimeter should upgrade. The remaining feature set is the same as 1.2.

Help more closely integrated into system

12-23-2009 Version 1.2 of ChromaPure is now available

New Features

Support for automation with the Accupel (HDG-3000/HDG-4000) external signal generator

Support for automation with the PC's video card

Support for integrated reporting (Excel no longer required)

Support for the Klein K-10 non-contact professional colorimeter

Support for 15% and 95% levels in gamma module for use with JVC projectors

Support for 64-bit operating systems

Cosmetic Enhancements

Grayscale and Color Gamut modules now display the dE method selected in the Options module.

Bug Fixes

We have fixed an issue that arose when changing Options or importing a session file. Previously, the new data would only appear after closing and then reopening a module. Now the data automatically refreshes.

We have removed the .cal session file format and replaced it with a .calx XML format instead, which is more reliable, scalable, and can be opened by the user as a text file.

Known Issues

We are still working on providing 64-bit support for the DTP94 colorimeter.

10-07-2009 Version 1.1 of ChromaPure is now available

Cosmetic Changes

Added icons along the top of the window

Bug-fixes

Fixed problems with the Chroma 5 colorimeter's CRT mode.

Fixed a problem in which quickly moving between open modules would cause a crash.

Fixed an issue that arose when reading very low light levels in which the values could not be interpreted by the gamma chart resulting in an unhandled exception.

New Features

Added support for Excel 2007 (for reporting).

Added support for the DTP-94 colorimeter.

Added a feature that prevents system instability that may arise when users would attempt to take readings in one module when the continuous mode was still enabled in another module.

Added an auto-save and data recovery feature to enhance data integrity. When you exit ChromaPure© normally, you are asked if you first want to save the calibration session.* Also, the system will now auto-save the session data every 2 minutes. If the calibration session is unexpectedly interrupted due to loss of power or a system freeze or shutdown, upon re-starting ChromaPure© the user is asked whether he or she wishes to load the most recently saved data.

Added an XML file format to session data export. The advantage of this over the binary .cal session files, which are retained, is that you can open the files and read them in a web browser.

Added support for the CIE2000 color difference formula

Added an optional 5% reading in the Gamma module. This can help with getting shadow detail just right, especially with a display or processor that offers point-by-point gamma adjustments.

Application modules now have scroll bars when all the controls do not fit in the window.

ChromaPure© no longer allows multiple instances of the application to be running.

* The binary session files saved with older versions of ChromaPure may no longer work.

Licensed users will be provided with download instructions.