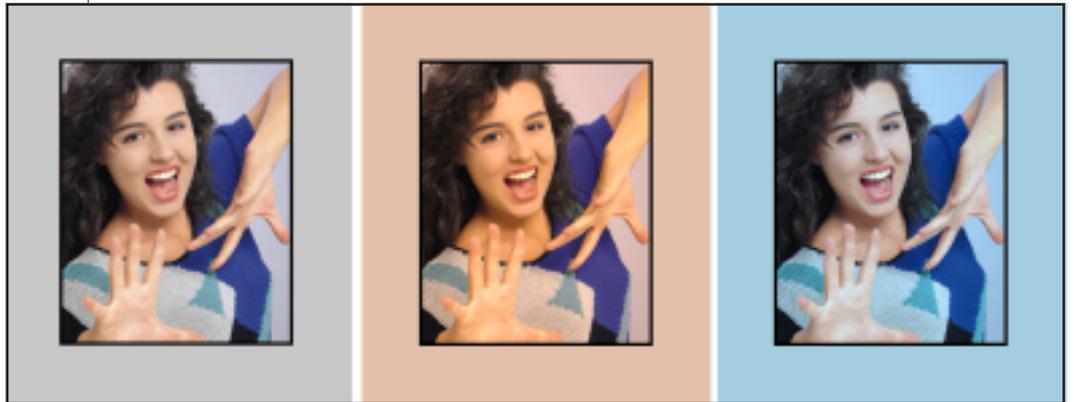




Apple ColorSync Displays

Color you can trust.

Display variability over time can cause color hue shifts that will make screen-to-print color matching difficult even when using a color management system. Stable displays are critical to the effectiveness of a color management solution.



What is ColorSync?

ColorSync is Macintosh system software that solves the problem of widely varying color from capture to display to output. Recognizing a device's capabilities via a "profile," ColorSync translates and compensates for these inherent differences so that users get consistent, reproducible color from scan to photo to display to print—even across platforms. This translates to fewer proofing cycles (saving labor and materials), the ability to communicate color across networks (for fast turnaround), and better creative control of color.



A little background

It used to be so simple: Computer displays showed black type on a white screen or the reverse, and pages printed from a computer looked much the way they had when viewed on-screen. But as color became more pervasive, the process became much more complex.

Today, electronic publishing involves innovations designed to streamline viewing and working with color. Apple's ColorSync technology provides the foundation for a complete color management system that makes that process not only easier, but also far more cost-effective.

ColorSync is part of the Mac OS. It saves users time and money every year by translating color information between the Macintosh computer and imaging devices such as scanners, printers, displays, and cameras. It does this using measured color output characteristics for each device, making an electronic "fingerprint," or profile. Because the characteristics of the devices change over time, they must be calibrated regularly so that they operate as their electronic "fingerprint" suggests. The benefit is a publishing system that is consistent and predictable from display to print, eliminating the trial and error of "chasing color."

The display challenge

The major problem that users face when moving from display to print is color accuracy—the discrepancy between what you see on the screen and what you get on paper. That's because a display generates color differently than a printer does, which makes color matching inherently difficult. This innate problem is compounded by other factors that can undermine on-screen color accuracy, such as ambient lighting conditions and changes in display components over time. An additional difficulty is posed by the need to provide precise control over all viewing parameters—enabling the user to make the exact adjustments required to ensure optimal display performance in a wide variety of situations.

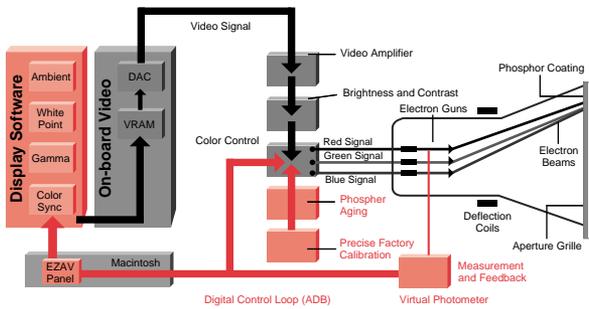
The Apple solution

Because of the tight integration of our system software and hardware products, and our long-standing relationships with publishers and creative professionals, Apple is in a unique position to deliver a complete solution that helps them get their work done and makes the process easier. We understand that a complete color management system requires a display that can provide predictable color over time and software that ensures that color can be communicated between devices.

This knowledge is what enabled us to craft the Apple ColorSync Displays to meet the requirements—and exceed the expectations—for superior color accuracy of even the most demanding users. And because we know just how competitive today's economy is, we also designed these advanced displays to provide an outstanding return on investment.

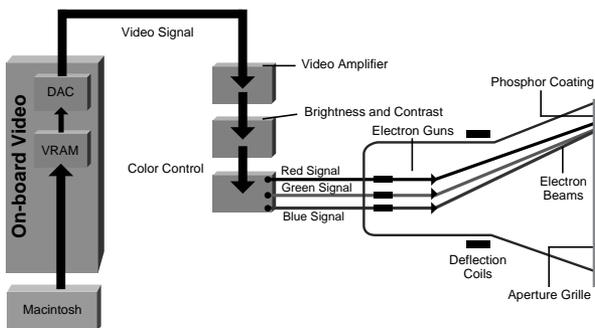
www.apple.com

ColorSync Display



The ColorSync Display design provides a closed-loop process that ensures that the on-screen colors are both accurate and consistent. A typical display lacks this “feedback loop” to control the inherent variability of a display design. The feedback loop design means the ColorSync Display is stable and reliable.

Typical Display



Display color vs. print color— and the ColorSync solution

The color you see on a display is produced by red, green, and blue phosphor stripes on the surface of the screen, which when stimulated to varying degrees combine to produce the desired hues in an “additive” process. In contrast, the process of printing is based on entirely different colors—cyan, magenta, yellow, and black—which produce hues by absorbing some light wavelengths and transmitting others in a “subtractive” process. Apple’s ColorSync technology resolves this discrepancy, providing consistent color from screen to print.



Apple ColorSync Display features

Built-in “intelligence”

First and foremost, Apple’s unmatched level of integration between hardware and software enables us to develop “intelligent” displays—displays that can communicate with our computers. This integrated approach to product design allows us to provide users with precise, powerful software-based control over everything from white-point settings to virtually all aspects of on-screen geometry, replacing the frequently difficult-to-navigate button controls with intuitive on-screen software that takes the guesswork out of making even the most minute adjustments.

Automatic calibration

The Apple approach begins with factory calibration for perfectly predictable color right out of the box, along with integrated software that automatically compensates for the CRT aging that would otherwise cause hue shifts over time. It continues with a remarkably easy-to-use combination of software-based controls and a handheld tool that enables appropriate adjustment to compensate for ambient lighting. And it finishes by adding the ability to create “color profiles” that communicate the characteristics of these displays to other devices quickly and easily.

The “why”

Although they involve no fewer than six patents, what makes Apple ColorSync Displays special isn’t really their advanced technology. It’s what that technology enables users to do—which is to get their ideas into print faster, better, and at less expense.

For individuals, the ability to precisely control the image and trust the accuracy of the colors they see on-screen means increased productivity and creative control. For workgroups, the capacity to create and export color profiles ensures accurate viewing from one device to another, which means they can easily share work among themselves or with clients—with a high degree of precision. For organizations, use of ColorSync technology to make the process of screen-to-print color more predictable means the elimination of expensive, time-consuming proofing cycles in the standard printing process.

Apple ColorSync Displays provide all of this functionality at a surprisingly affordable cost, offering an exceptional price/performance value.

For more information

To learn more about ColorSync technology, visit our web site at colorsync.apple.com. For more information about ColorSync Displays and other Apple products, or to find out where to buy Apple products—through a reseller or from the Apple Store—visit www.apple.com or call 1-800-538-9696.