Issue 246

October 2016

aipp® JOURNAL

EIZO's Affordable Monitors

A good quality computer monitor isn't a luxury, it's an essential tool for every professional photographer. And while EIZO has some of the best quality monitors in the business, it also has an introductory range which means every professional can afford one.

Being a professional photographer comes with some basic responsibilities, such as providing your clients with digital files and prints that are correctly processed – meaning accurate exposure and correct colour.

So, how do you know that what you are providing is correct? How do you know it matches international standards? How do you know your clients will see what you see when they open your files on their computer?

Unfortunately, in most situations we can't control how our files are viewed by our clients, but we can ensure that what we supply is correct so that if our clients do view it correctly, they will see what we see.

This is what colour management is all about. Colour management is a process that allows us to produce work that matches an agreed standard. It means the reds on our monitor will closely match the reds on any other correctly calibrated monitor or print reproduction.

However, good colour management practice requires us to use a good quality colour monitor. The cheap $100 screens at the discount stores and even the screens provided on an average laptop computer are unlikely to provide you with an accurate result.

SCREEN TEST

Here's a test for your own computer monitor. Open Photoshop and create a blank, white file.

Next, use the Gradient tool to create a black to white gradient across the file and then posterise the image into 21 steps (instructions are over the page).

What you now have is a step wedge of mathematically accurate numbers, with no colour. How do you use this?

When you look at this file on your monitor, it should have an even progression of tones from black to white. If it doesn't the contrast and brightness of your monitor is either not set correctly, or is not capable of being set correctly.

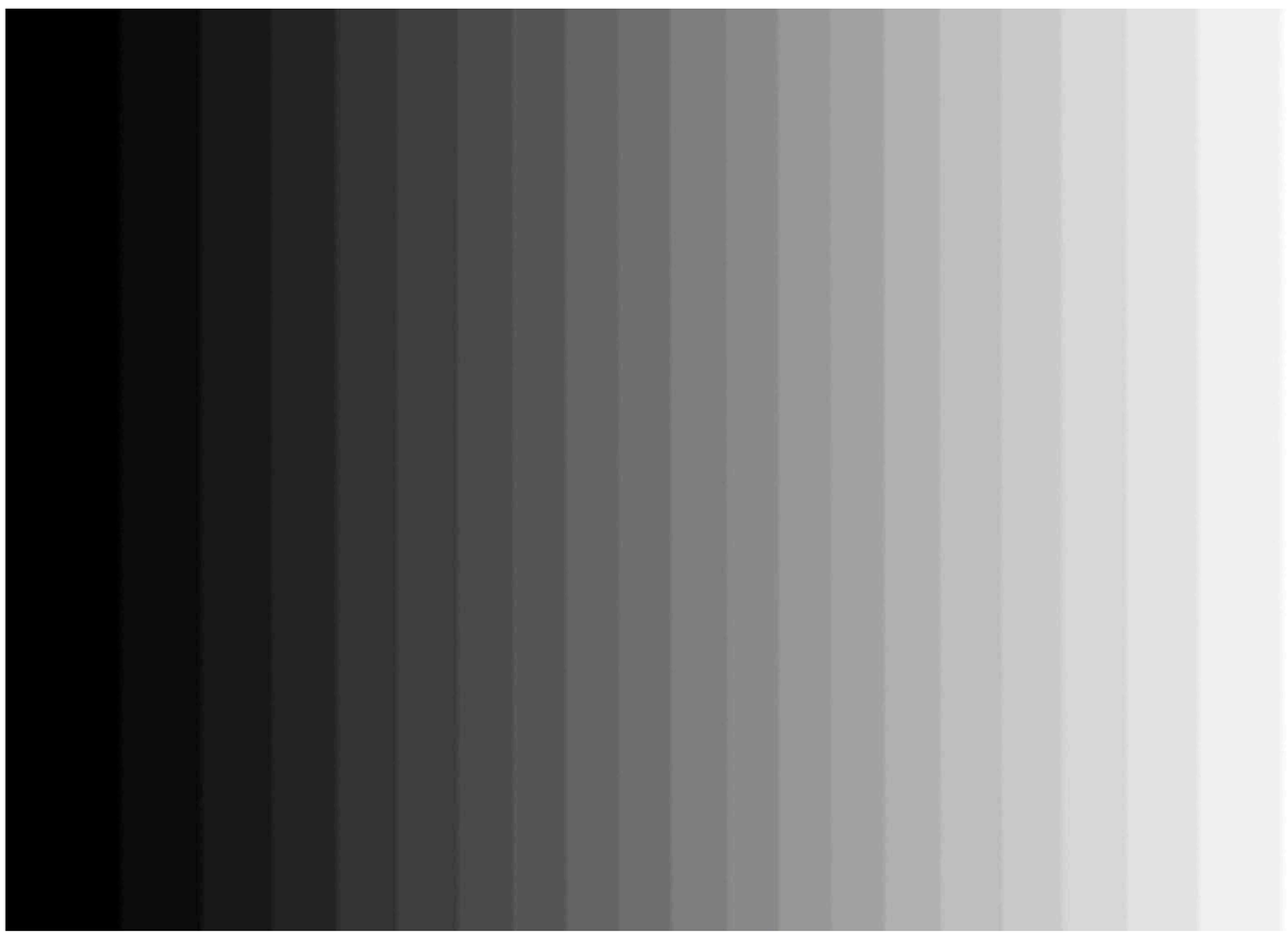
Similarly, there should be no colours in the grey areas - because there are no colours in the file (we know it is only grey). If there are colours, it indicates the monitor needs to be calibrated, or it is not capable of being calibrated.

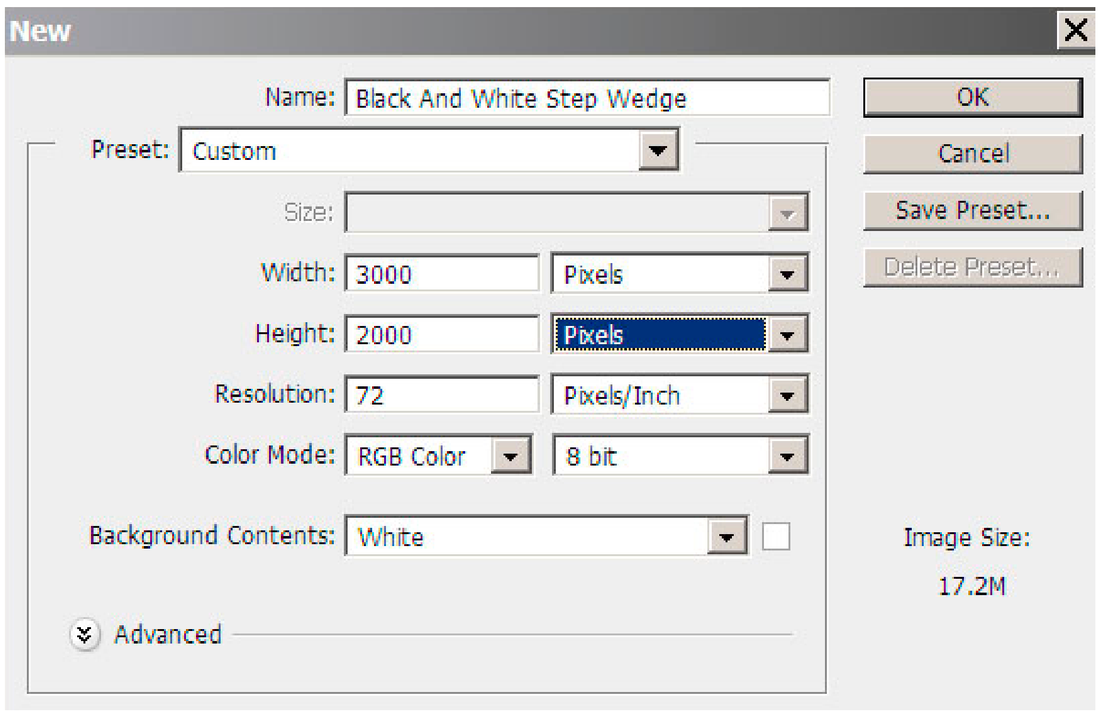
TAGS

Colour manaagement
Monitors

AUSTRALIAN INSTITUTE OF PROFESSIONAL PHOTOGRAPHY
aipp™

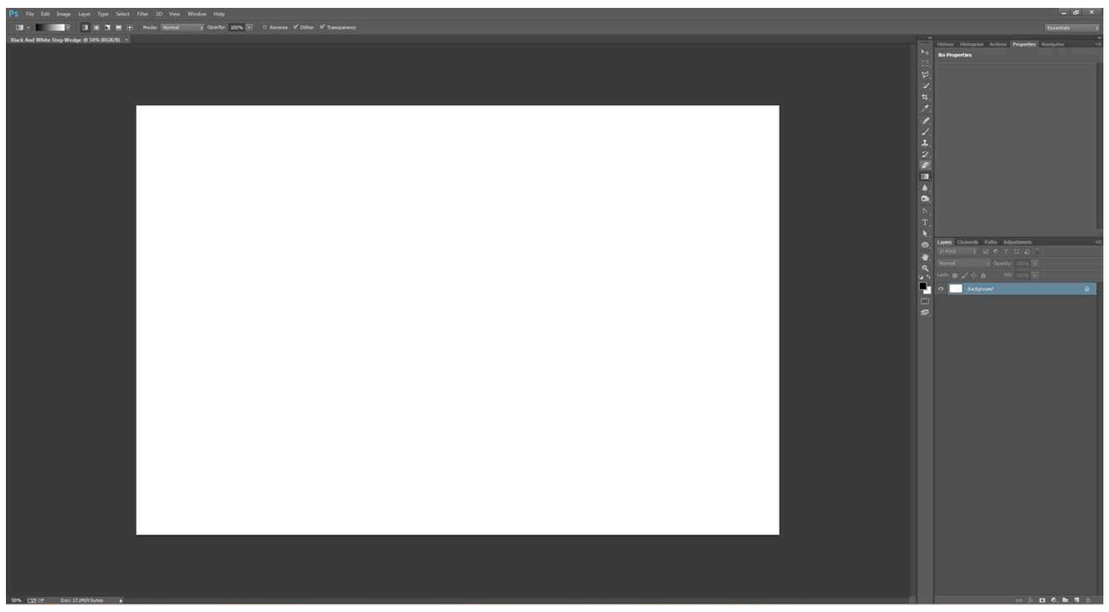
Above: Eizo's FlexScan EV2750. Below: A black to white step wedge.



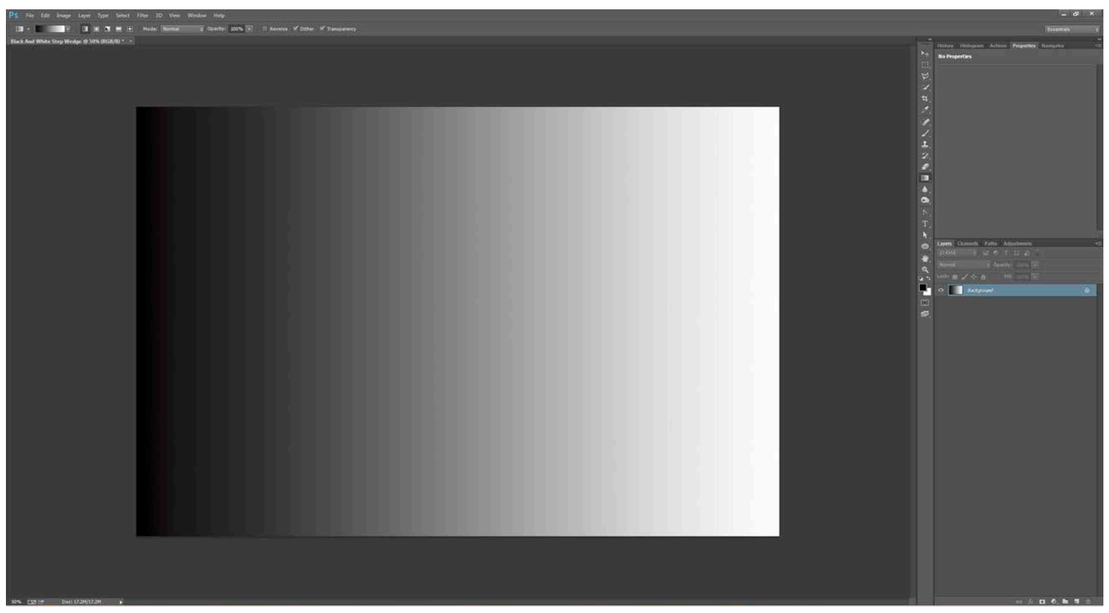


STEP 1

In Photoshop, create a blank white file. File > New... you can use the settings shown here, but all that's required is a white file.



The result should be a white image like this.



STEP 2

Add a gradient from black to white. Choose the Gradient Tool and ensure the tool is set from black to white. Drag the tool from right to left across the image to produce a gradient from black to white.

STEP 3

Posterise the image into 21 steps. Image > Adjustments > Posterise. This is a quick way to produce a step wedge of 21 steps in 5% increments from black to white. And as these are just numbers, we know exactly what the values are.

There are many other aspects to monitor design and testing, but if the results are not good, what is a good starting point when it comes to a new monitor?

EIZO FLEXSCAN

The EIZO FlexScan are 'general purpose' monitors, but are a step up from an everyday monitor. They have a slim design, are frameless and are available in black or white, but more important are the specifications.

For instance, there are three FlexScan monitors recommended for photographers. Each has a 10-bit lookup table (LUT), whereas most monitors have 8-bit LUTs. The advantage is a greater range of tones and colours, and hence a more accurate photograph on screen.

The monitors provide the equivalent of an sRGB colour space, there are separate controls for brightness, contrast, colour temperature and gamma, and there is RGB adjustability for more accurate calibration with DataColor Spyder or Xrite i1 calibration devices.

The introductory FlexScan EV2450 is a 23.8" screen with 1920x1080 pixel resolution. It offers a maximum brightness of 250cd/m^2 and retails for $682.

For a slightly brighter screen at 300cd/m^2, the 24" FlexScan EV2455 retails for $850 and offers 1920x1200 pixels, while the larger 27" FlexScan EV2750 features 350cd/m^2 brightness, 2560x1440 pixels and retails for $1650.

The EV2750 uses an LED-backlit IPS (in-plane switching) LCD panel with a 178° viewing angle that minimises color shift and contrast changes when viewing the screen at an angle.

To prevent eye fatigue, a brightness sensor called Auto EcoView detects the changes in the ambient brightness that occurs throughout the day and automatically adjusts the screen to the ideal brightness level.

Due to the way brightness is controlled on most LED backlights, many people perceive flicker on their screen which causes eye fatigue. The FlexScan EV series makes flicker unperceivable without any drawbacks like compromising colour stability.

While these monitors are not in the same league as Eizo's flagship ColorEdge monitors, they do come with a five year, 30,000 hour warranty.

To see more details on the recommended EIZO Flex-Scan monitors, visit

FlexScan EV2750

http://www.eizoglobal.com/products/flexscan/ev2750/index.html

FlexScan EV2455

http://www.eizoglobal.com/products/flexscan/ev2455/index.html

FlexScan EV2450

http://www.eizoglobal.com/products/flexscan/ev2450/index.html

FURTHER DETAILS

www.eizoglobal.com

AUSTRALIAN INSTITUTE OF PROFESSIONAL PHOTOGRAPHY

aipp

PROUDLY SUPPORTING THE AIPP

Nikon

EPSON
EXCEED YOUR VISION

Leica

digiDIRECT
cameras & imaging

Kodak alaris

PPIB
Professional
Photographer's
Insurance Broker

Kayell australia
Imaging • Graphics • Media

EIZO

ips 10
"Independent Photographic Supplies
Celebrating 10 Years in the Photographic Industry"

L&P DIGITAL PHOTOGRAPHIC

Team Digital
Technology to capture,
create and communicate

Giclée MEDIA SUPPLIES
The Giclée System
Your Guarantee of Archival Life

GRAPHISTUDIO
MADE IN ITALY

MY INSURANCE BROKER .COM.AU

momentopro

ELEVEN40

ATKINS
FOR PICTURES THAT MATTER
EST. 1936 ATKINS.COM.AU

ILFORD

ZEISS

MASON BLACK
Lawyers

seldex
artisticalbums

Camera Electronic

Fitzgerald
PHOTO

nulab
professional imaging

LACIE

art'sedge
PHOTO & FRAME

des
beyond creation

DNP

Profoto
The Light Shaping Company

FUJIFILM

Diamonds
CAMERA / VIDEO / DIGITAL / THAT'S YOUR BEST SHOT

CANSON®
INFINITY

elinchrom

AUSTRALIAN INSTITUTE OF
PROFESSIONAL PHOTOGRAPHY
aipp™

TRADE PARTNER
AUSTRALIAN INSTITUTE OF
PROFESSIONAL PHOTOGRAPHY
aipp™