

Errata for the first printing, published April 2009

Page 176, first itemized list, "A crossover test pattern includes", should read:

- a solid white background in the left eye
- a solid black background in the right eye
- a gradient from pure black to pure white inserted in the right eye image

Page 177, figure 10.6

The "right cross over" image in the first line should be gray on black, just like to one on the second line.

Page 180, third line of the itemized list, should read;

- RealD will run the ghost-busting pass at any of its licensed facility.

Page 185, first paragraph, second sentence, should read;

The camera pans slowly to the left, bringing the hero into the frame at -15 pp.

Page 199, first paragraph, last sentence, add;

3Ality announced at NAB 2009 that their 3Flex camera systems are now available for sale.

Page 199, last paragraph, first sentence, remove;

needed for perfect image geometry

Page 202, first paragraph, second sentence, should read;

This compact *8-perf 35mm* camera has a complex and flexible optical system that allows for rapid lens change, ~~and interaxial~~ and convergence control. It's another solution that you may need in special cases.

Page 204, fourth paragraph, should read;

The US company Lightspeed Design has devised a full production pipeline, from the 3D rig to the projection hardware, including an in-house-developed 3DHD recorder and player, and a complete set of tools that interface with After Effects.

Page 204, sixth paragraph, should read;

The French start-up Binocle, ~~a spin-off of Thomson-CRASS-Hatley~~, is producing compact camera sockets that integrate the motors and computers needed to animate 3D parameters. They can be arranged in many configurations, including parallel, upward-looking, and downward-looking beamsplitters and Steadicams.

Page 204, sixth paragraph, should read;

Onset 3D monitoring tool developed by Lightspeed Design as a part of their DepthQ stereoscopic suite.

3D Movie Making

Stereoscopic Digital Cinema
from Script to Screen



Errata

As of December 2009,
for the first printing,
published April 2009

Despite all my efforts and the tremendous help from the Focal Press editorial team, 3DMM has its share of imperfections. It was written in a few months, under the pressure of the ongoing 3D revolution. On track to be sold out after only 6 months, a new printing was ordered Fall 2009. A few friends have been so kind as to send me corrections, and Phil Streater took the trouble to spend many hours giving me a page-by-page critique.

Here's a compilation of the upgrades that made their way to the version 1.01 of 3DMM. In order to help the reader figure out the sometimes subtle modifications listed in this errata page, the new text or words are shown in italic. Please do not read this as an emphasis. If you have the feeling that some errata listed here are far too detail-oriented, you are beginning to understand to what extent subtle details in the picture can ruin your 3D.

Bernard Mendiburu

Page 23, end of second paragraph, add;

Unless, of course, you have an artistic intent and it blends well into your editorial.

Page 27, end of exercise insert, add;

Depending on the accuracy of your vision, you'll find this limit ranging from 100 to 200 feet.

Page 37, Line 3, insert in the list

Shawn Phillips, Hugh Murray.

Page 58, end of first paragraph, add;

They can be fitted with the entry-level RealD-LP system.

Page 58, end of second paragraph, add;

...or Dolby/Infitec

Page 64, end of second paragraph in the exercise insert, add;

What you'll learn here is what is done in real-time by a 3Ality SIP2100 or Binocle Disparity Killer.

Page 76, last sentence above grey box should read;

What was placed beyond stereoscopic infinity, more than 2.5 inches apart, will now be above 5 inches of parallax, requiring diverging effort to be fused and potentially generating a strong headache within minutes, if it's the subject of the audience attention.

- Page 77, Title of figures 5.6 and 5.7 are swapped
- Page 85, last sentence above figure should read;
In the foreground, action scenes can use huge NPPs, up to hundreds of pixels, like the flying gun in "My Bloody Valentine" which flies up to 400 pixels.
- Page 86, in exercise box, last line first column, should read;
The native parallax is the human interocular of 2.5 inches in the United States and 65 mm in the rest of the world, divided by the screen size.
- Page 86, in exercise box, last sentence, should read;
The same is true for television, to the point that audience tests have shown that the 0.7 percent or parallax we set up for movie theaters is usually preferred to the 2.5 to 3 percent dictated by pure math. Based on his experience, Alain Derobe suggest that for screens under 6.5m, the reference NPP should be reduced from 65mm down to 10mm for a 1m screen.
- Page 87, beginning of second paragraph, should read;
Depending on the type of movie subject and the target audience, you will expand this range, up to double eye-width in positive parallaxes behind the screen, and five to ten times negative parallaxes in front of the screen for in-the-room effects. In a handful of shots, negative parallaxes could be bumped up to 20 times the native parallax.
- Page 87, first sentence of last paragraph, should read;
The amount of 3D space used in a shot does not cover all the 3D real estate available in the Depth Budget.
- Page 88, Caption of fig. 5.20 should mention;
Image courtesy of Lightspeed Design.
- Page 90, Last bullet of item 2 should read;
■ It can sometimes be fixed in postproduction, with various levels of success.
- Page 99, Last sentence, add;
The exception is a lasting picture which the audience is invited to scan in depth, as is typically done with Imax3D landscape shots.
- Page 100, first paragraph, last sentence, should read;
It is a complex process that can be achieved in a couple of shots on low budgets, but should be considered for massive use only on heavy VFX movies produced by experienced teams.
- Page 114, first paragraph, last sentence, should read;
This will attract the viewer's attention, but he will be unable to fuse this object's images because he does not see it with both eyes. To prevent such retinal rivalry, keep the frustum borders under low contrast.
- Page 115, Under "Stereoscopic Previsualization", after last sentence, add;
Frameforge, from innovative software, offers a full set of 3D-specific tools, with 3D rigs models and live stereoscopic preview. It generates 3D setting sheets with inter-ocular and convergence values.

- Page 119, second paragraph "animating the convergence", should read;
Convergence evolution along a shot, including H.I.T. post convergence, is more common than dynamic interaxial. It still is a delicate tool to use because it will shift the whole world along the Z axis. We will see in Chapter 10 how it is used in postproduction to smooth jump cuts.
- Page 119, fourth paragraph "animating the interaxial", should read;
Shots with a static universe and camera position do not require any dynamic adjustment of the interocular distance. Only complex shots with important camera movements will need it. Because the interocular distance has a scaling effect on the perceived size of objects, it may need to be synchronized with some dolly or zoom progression, or it may not blend in and could be noticed. Used alone, its magnification effect on the volumes will be felt and should only be applied with an artistic intent.
- Page 151, Chapter Title, should read;
Editing 3D
- Page 156, fifth paragraph, last sentence, should read;
Such ad hoc procedures on makeshift equipment are only being deprecated with the release of entry-level all-software 3D editing solutions. A handful of new solutions were released after this book was written are listed at the end of this chapter.
(below in the instance of this errata sheet)
- Page 169, at the end of the chapter, "2nd Print Update" is added as follow;
- Note from the author as of October 2009.**
As expected, we have seen many major announcements in the 3D editing field since that book was sent to press early 2009. We will only list them here and invite the reader to get more information directly from their vendors.
Offline editing saw the release of a major tool, Cineform's Neo3D. This video encoder records both eyes at full resolution, but presents only a single 2D stream to the host application. That 2D being any form of 2D-compatible 3D format. This clever trick allows you to edit 3D in any 2D application. Tim Dashwood released it's Stereo toolbox, a plug-in powered by FxFactory and designed to work with Adobe® After Effects® CS3 / CS4, Apple® Final Cut Pro®, Apple® Motion® and Apple Final Cut® Express applications. Find out more at;
<http://www.timdashwood.com/stereo3dtoolbox>
Online editing saw Avid's announcement that all versions of MediaComposer are 3D-capable using 2D-compatible stereo formats, and offline full resolution renders. Quantel, Iridas, Assimilate and Autodesk kept updating their stereoscopic offers, with more 3D-dedicated functions, improved ergonomics and optimized code.
SGO offers its high-end solution, Mistyca, with stereoscopic editing functions. You'll get more information from <http://www.sgo.es>