cel-scope® 3D
stereoscopic analyser

In your 3D stereoscopic production, if you don't monitor and control the depth budget you are at risk of giving your audiences' eyes a really hard time… — their headaches could mean a one big one for you : they might not watch again!

Cel-Scope3D can provide stereoscopic 3D monitoring and depth budget analysis at low cost. This is a Windows program that runs on a PC without special or expensive hardware. It allows accurate camera and rig set-up to be done quickly and confidently so that the 3D will be right first time. Its facilities can also be use in post production to check any correction, fixes and tweaks are going to be pixel prefect and that the depth budget is used to its advantage without abusing the audience.

▸ **Real time depth budget indication and alarms**
▸ **Live 3D rig camera assist, setup and monitoring**
▸ **Works with standard capture cards or devices**
▸ **Live sources in HD-SDI, HDMI, 3G, SDI, HDV**
▸ **HD or 2K in most formats & TV standards**
▸ **Media files playback most 3D formats**
▸ **Touch screen monitor compatible**
▸ **Monitors pictures, waveforms and depth simultaneously**
▸ **Shows 3D in any anaglyph combination & swap left/right**
▸ **Wiggle, checkerbox, splits and difference (onion skin)**
▸ **Depth Spectrogram & Edge violation detection**
▸ **Software app or turnkey system in laptop or rack-mount**
▸ **Logging reports to broadcast profiles** (optional extra)

Typical display set-up with depth and disparities mapped out in false colour

The screen layout can be easily customised with any display in any window and at any size. Your settings can be saved in the preset buttons for easy recall when you need it. The whole display can be resized on your monitor to be full screen or as big or small as you want.

depth budget analysis in real-time
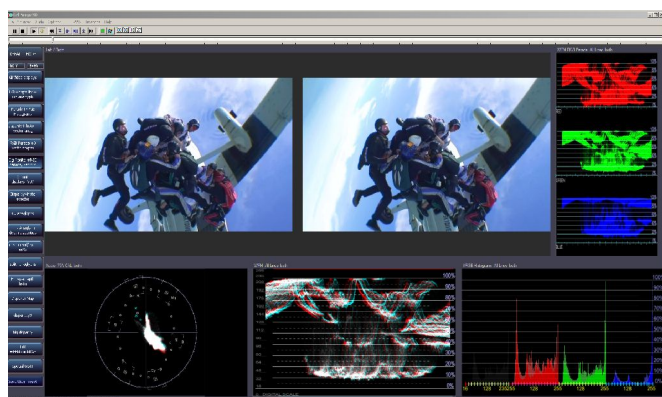## 3D & TV measurement technology

cel-scope® 3D
stereoscopic analyser

The depth histogram actually shows the full range of values being used in your shots. This can use the same colour scale as the depth map. A numerical scale shows exactly what values you are hitting.

The depth analysis readout simply summarises all that data with your max and min values and the overall average. You can also set up and alarm for any out of budget excursion so you can get on without having to continually look at the displays.

Cel-Scope3D can do far more: vertical disparities happen if one camera is even slightly higher or tilted. These types of errors are the hardest to fix in post. The vertical disparity histogram distinctly shows if there is any offset so it can be tuned out by adjustment on the stereo rig. There is also an image manipulator to aid correction and convergence adjustments.

Cel-Scope3D can work with all professional video formats including YCbCr or RGB 4:4:4, standard and high definition formats. Given a suitably powerful PC platform to run on, Cel-Scope3D can show preview displays from left and right channels simultaneously. As well as actual depth budget in real-time, waveforms vectorscopes and histograms can be viewed. You can set-up and save any arrangement of display windows 1 to 6, and save then to user preset buttons. The keyboard F keys can select these. If you have a touch-screen then it is very easy to switch modes to what you want. As well as full video measurement and monitoring, the package also has full multi-channel audio and surround display facilities too.

Depth histogram with budget markers
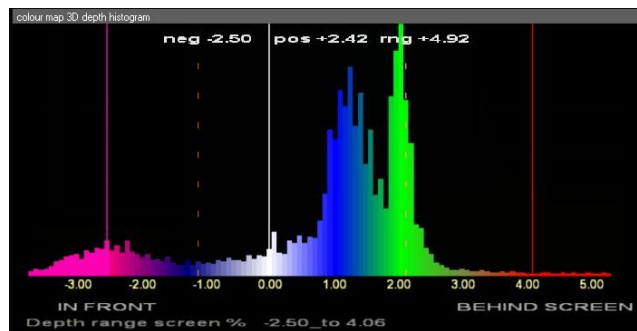
Depth Spectrogram with limits
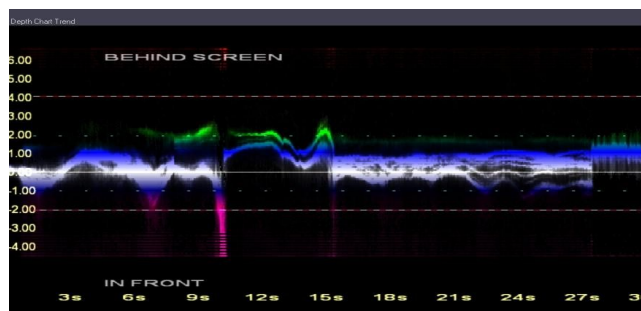
depth dynamics on any time-line scale

Cel-Scope3D can either be used on-set for camera setup and alignment or in post for checking image quality levels at pre or post edit. Most files types and container formats are compatible such as Quicktime, MXF, WMV, AVI, MP4 etc. The 3D can be in any of the usual formats: side-by-side, top–bottom or interlace. Footage can be played and viewed in 3D either on the computer monitor with any anaglyph scheme or using an external 3D display device.

In its live mode, the software is intended to operate with genlocked synchronous sources from a dual input device or pair of capture cards or devices. Input cards and devices from all manufacturers with a WDM driver can operate such as AJA, Bluefish, Blackmagic etc. It can also operate from Firewire connected devices using DV or HDV.

If any left right video sources are not genlocked, they will be synchronised by the software. In this way, it may possible to operate with non-broadcast cameras such as digital SLRs or domestic camcorders if need be.

Cel-Scope3D runs under Windows-7, Vista and XP. An up-to-date NVidia graphics card is necessary for full functionality.

For full technical and ordering info please refer to product web-site or your local distributor's sales office

Cel-Soft

**3D & TV measurement technology**

www.celscope3D.com

www.cel-soft.com

Cel-Soft Ltd.
Signal House, Wimbish
Saffron Walden
CB10 2XQ , GB

phone +44 (0) 1799 599800
email sales@cel-soft.com