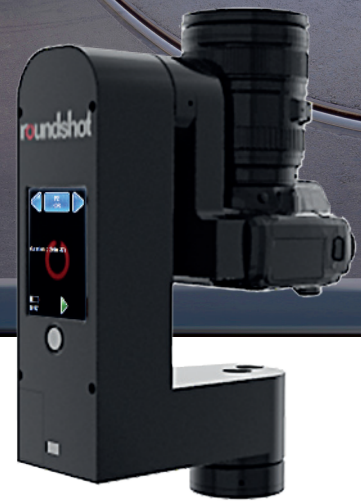
Sharp, clear, rich HDR spheres at outstanding speed.

Roundshot VR Drive Metric



- Fully automatic image capture and HDR panorama rendering
- Professional DSLR camera calibrated with VR Drive for perfect alignment and precision
- High resolution HDR spherical output for virtual tours, computer-generated imaging (CGI) or forensic applications
- Add-on software enabling accurate 3D measurement + CAD tools
- Highly productive, fully automated system without any need for post-production.
- Compact, lightweight, reliable and affordable!

roundshot
fast 360 degree panoramic equipment

VR Drive Metric

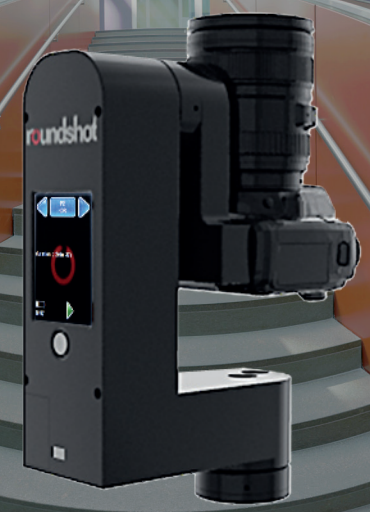
Hardware

SIMPLIFIED HARDWARE – NO ERRORS POSSIBLE!
Out of the case, on the tripod, go! The VR holder is designed specifically for one type of camera, making centering and nodal point adjustments history.

FULL FRAME DSLR CAMERA WITH WIDE-ANGLE LENS ALLOWING RICH DETAIL
The VR Drive metric uses a Canon EOS 6D – a full-frame DSLR camera equipped with a 20mm lens. This 20 megapixel camera provides high sensitivity and best image quality even under difficult lighting conditions.

FULLY AUTOMATED IMAGE CAPTURE
Select the program (with or without HDR) and press start. Leave the rest to the machine. The VR Drive Metric programs can be customized and are locked to ensure that operating the VR Drive is easy and completely worry-free.

BUILT TO LAST
True to its reputation, the Roundshot VR Drive Metric is built with finest materials – made in Switzerland. All parts are machined from aluminum and withstand any climatic challenges.



COMPACT + LIGHTWEIGHT WITH MANY HOURS OF BATTERY LIFE
We built the VR Drive Metric for those VR professionals who are constantly on the move. With its limited weight and compact dimensions it fits into a small case and can be taken virtually anywhere. The camera and VR Drive batteries are connected to each other, enabling enhanced battery life and simple charging.

FOVEX PANOMAKER STITCHING SOFTWARE
Thanks to this far advanced stitching software the high resolution HDR panorama is stitched and rendered in under 3 minutes. When receiving the images, the software automatically groups them into projects and batch processes all panoramas. No need for post-production or manual intervention - the panoramas are perfectly stitched with sub-pixel accuracy.

HIGH RESOLUTION 180X360° SPHERES WITH IMPRESSIVE QUALITY
With 9,856 x 19,712 pixels the rendered panoramas have a impressive resolution of 194 million pixels. Instead of a fisheye lens the VR Drive Metric system uses a high quality wide-angle lens with best optical qualities. Thanks to the excellent lens and to the consistent workflow, the resulting images are very clear and extremely sharp.

Calibration

Panoramic photography meets photogrammetry. For the first time a panorama stitching software exploits the benefits of system calibration contained in the state-of-the-art FOVEX software. This process guarantees stitching of individual images at sub-pixel accuracy.

The result? Perfect geometry for downstream stitching and processing, allowing a much enhanced accuracy. This is how the high resolution sphere can be used as backplate images for CGI, for high precision forensic applications and - ultimately – for 3D measurement.

Productivity

Time is Money! The VR Drive Metric solution enables VR professionals to create hundreds of spherical panoramas per day. The machine does the job so well that it is freeing up precious time for those VR professionals who build up a serious business.

Image capture for a 180x360° sphere takes outdoors in normal mode (29 images) 58 seconds.
In HDR mode (for example 3x29 images) this process is completed in just 1 minute 56 seconds.

Stitching and rendering of the 180x360° panoramas is equally fast. For a sphere in normal mode the FOVEX software typically requires 1-2 minutes, for a 32-bit HDR panorama typically 2-3 minutes.

Applications

VIRTUAL TOURS

Creating hundreds of spherical VR panoramas in a short time? The VR Drive Metric features a fully automated workflow from A to Z. Results are repeatable and dependable . The VR Drive Metric provides the productivity so that the VR photographer can work with – and not against – sharp deadlines.

32-BIT HDR FOR CGI

The VR Drive Metric is the first VR robot providing a 194 million pixel HDR sphere. Depending on the light situation and target dynamic range, bracketing of 3, 4 or 5 images can be selected. The VR Drive Metric automatically measures the light and shifts the exposures accordingly. Thanks their high resolution the 32-bit HDR files provide rich data, expanding the limits for CGI professionals!

FORENSIC PROJECTS

Documenting a crime scene in high resolution has never been easier! The VR Drive Metric solution allows a complete documentation in 180x360° imagery. Thanks to system calibration the resulting spheres are a very accurate representation of the real scene.

3D MEASUREMENT

The VR Drive Metric – combined with powerful FOVEX software – opens the door for advanced photogrammetry projects. Imported into FOVEX Measure 3D, the images are oriented and provide a network for accurate 3D measurement. These 3D measurement results can be shared in a virtual tour, can be embedded in the images or exported into a .dxf file.

Workflow

VR DRIVE METRIC

The VR Drive Metric positions and releases the DSLR camera to capture high resolution images with or without HDR bracketing. .

FOVEX PANOMAKER

The images are copied to a computer where the FOVEX software automatically groups the images into projects, stitches them to 180x360° spheres and renders them in 8-bit or 32-bit output.

SPHERICAL VIEWING

Embedded in VR viewing software, the spherical panoramas can be viewed to get a natural impression of the scene..

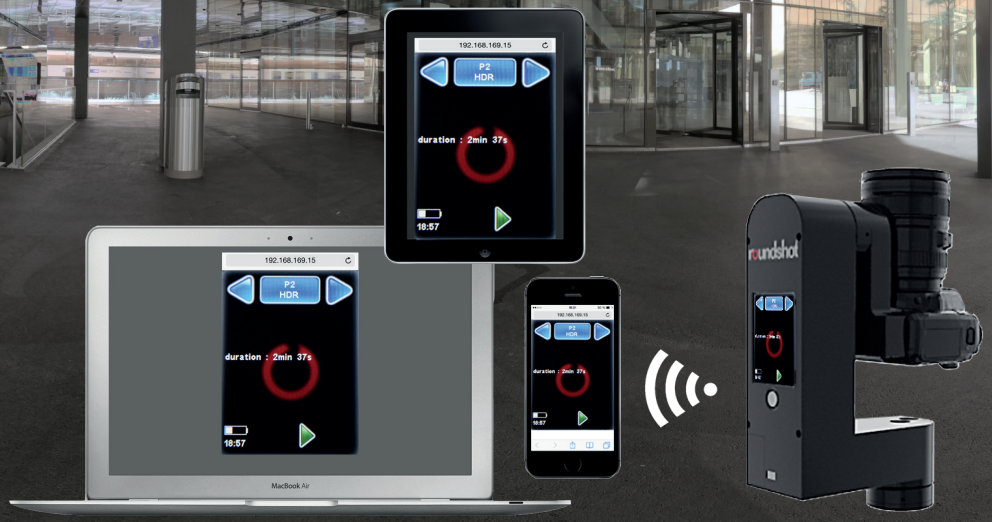
CGI SOFTWARE

Imported into computer-generated imaging (CGI) software, the spheres are the source for lighting and reflections. The spheres can also serve as backplates to render 3D objects photorealistically..

PHOTOGRAMMETRY SOFTWARE

Measure any distance between 3D points. Create CAD shapes on top of the images. Export the network into CAD software as .dxf files. Share results in a virtual tour.

VR Drive Metric



Remote control

With its wireless connection the VR Drive transmits its screen content to any mobile device or computer. This is ideal for controlling VR Drive program sequences remotely, but can also be used to create new programs, to edit the settings of a program or to release the camera manually in any x/y position. All that is required is a wireless sender unit that is plugged into the VR Drive ethernet socket.

180x360° spherical panoramas captured with Roundshot VR Drive Metric
with Canon EOS 6D and 20mm Canon lens
stitched in FOVEX PanoMaker software and exported as 32-bit HDRs
tonemapped to 16-bit for print

All images by Jafar Amiri Parian (www.photocore.ch)

roundshot
fast 360 degree panoramic equipment

seitz
made in switzerland

SEITZ PHOTOTECHNIK AG
Hauptstr. 14, 8512 Lustdorf
Switzerland
info@roundshot.com
www.roundshot.com
skype: roundshot
Ph. +41 52 369 68 00