

NCTech ColourCloud App fully integrated with FARO SCENE

HDR images captured in 20 seconds with NCTech iSTAR



FARO grey point cloud data



FARO HDR laser scanner internal camera colour



NCTech iSTAR camera colour



The HDR models for FARO Focus 3D scanners now offer the possibility to capture HDR images (3 and 5 exposure) from the internal camera for improved scan colourisation in challenging light conditions. As an alternative approach, the iSTAR HDR camera along with the NCTech ColourCloud App for FARO SCENE are fully integrated within FARO SCENE from version 6.0 onwards and provide even further improved (5 and 9 exposure) HDR colour imagery with dramatically reduced capture time on-site and fully automatic batch colourisation processing in FARO SCENE software.

On-site workflow

Capturing HDR imagery with iSTAR is both simple and rapid. The iSTAR is controlled via its touch screen and user interface is designed for minimal operator interaction and photography skills.

Following completion of the FARO Focus 3D scan capture (no need to capture Focus colour imagery) the scanner is swapped for the iSTAR using the same quick release mount on the same tripod. Specific camera rotational orientation is not needed.

After initiating image capture on iSTAR the user has a countdown timer and walk-around capture mode to avoid being caught in the shot. Capture time (during which the camera needs to be stationary) is typically from 10-20 seconds for a 5 exposure HDR shot in most common lighting conditions, after which the camera is immediately ready to be moved to the next capture position. Alternatively, the user can wait to observe the 360 image preview which requires the data iSTAR save process to complete (around 1 minute extra).

iSTAR automatically selects the best photographic settings, optimised for the entire 360 view of the scene, even where

part of the view is in direct sun and part in dark shade. Capture from all four lenses is synchronised meaning the full 360 view is imaged together and because capture time is short, managing the scene is made easier.

The user simply repeats this process for each camera position, ready for importation of iSTAR raw data directly into SCENE 6.0 and automatic batch processing.

Office workflow

Download and install NCTech ColourCloud for SCENE App to enable raw iSTAR data import and automatic batch scan colourisation within SCENE 6.0 onwards.

Simply set up your scan project as usual then apply the "NCTech Colourise" option and select the appropriate iSTAR .nctri raw data file(s). Scans can either be coloured one by one or the batch process can be launched for projects with multiple stations. As long as scanning was performed before iSTAR capture at each station the app will automatically match each scan with the corresponding image data for combination. Colourisation is fully automatic with no operator interaction, or need to select reference points.

	FARO HDR	NCTech iSTAR
Capture time per station	12m20s	11s
Exposures	5	5
Image resolution (SCENE planar view)	5047 x 2134 pixels	5047 x 2134 pixels
Colourisation per station	4m26s	2m20s
Device cost	HDR option \$5,000+	From \$5,390 (Fusion Lite)
NCTech ColourCloud App	-	Free of charge
NCTech Immersive Studio	-	Free of charge
Cloud sharing system	WebShare	Compatible with WebShare

See App Note for more details on using ColourCloud app

<https://www.nctechimaging.com/istar-farox130/>