

The Leica BLK3D combines reality capture technology from the BLK360 and the simplicity from a DISTO into one easy to use handheld device. The BLK3D, now available through SIS, enables users to extract 3D measurements from 2D photos thanks to its dual camera configuration and live photo processing technology. With this processing capability as well as several features from the Leica DISTO solution, it positions itself as the one stop shop tool for all sketch and documentation building surveys. Running on Android, the user experience is very similar to a smartphone just with a slightly larger form factor.



## Features & Data Capture

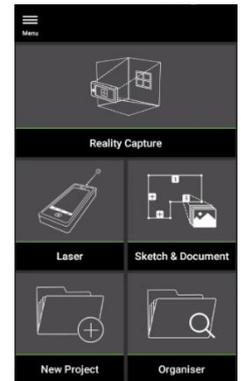
Those familiar with the Leica DISTO Plan App would likely recognize some of the features available on the BLK3D's own app. Features such as Sketch Your Plan, Smart Room and Measure & Plan are all available. However, the biggest upgrade is found with the Sketch On Photo feature, now called Reality Capture. Where previously the user could only indicate measurements *on* a photo, now the user can extract measurements *from* a photo.

Reality capture is where the BLK3D steps up its game compared to a DISTO. All stages of data capture and measurement can be performed solely on the device however, there is also the

option to extract measurements back in the office through BLK3D Desktop. Through the desktop software, 3D photos can be loaded from the device and viewed on a larger screen, making precise measurements easy.

## Reality Capture Feature

With the BLK3D app open and ready to go, the first option available is the new Reality Capture feature. This will immediately open the camera and allow the user to take a photo. After taking the photo, a progress bar appears indicating that the software is rectifying the photo. Just a couple of seconds later, 3D measurement can be taken.



Although measurement is possible from a single photo thanks to the dual or 'stereo' cameras, it is recommended to capture two photos. This will improve the accuracy of each measurement. Two photos take the BLK3D less than 15 seconds to process and a successful match is verified by two green ticks in the top right corner. After a short wait, both area and distance measurements are possible by simply tapping on the screen. The image below, taken during testing at Dublin's Hell Fire Club, shows the result of two processed photos with both areas and distances can be taken.



Walking into one of the Hell Fire Club's rooms, both the Reality Capture and Sketch & Document functions were used to produce the quick survey shown below.



Having sketched the four walls of the room, each wall could then be selected and measured using the laser distance module. The door, in this case a wall opening, and windows were added and positioned. The 3D position of such features can be provided by either entering known values or found using the laser distance module. Notes, markers, tags and even processed 3D photos can be added, providing much more detail to any sketch. Each photo can be added easily by switching to the document tab and pressing the red plus symbol. Shown are two 3D photos attached to the sketch on two of the room's internal wall measurements.



The ability to attach accurate photos to each section of the room is where the BLK3D can be very useful. This feature allows faster on-site sketching and the ability to extract more measurements back in the office, long after on-site work has wrapped up.

## Why BLK3D?

The combination of Reality Capture, Laser and Sketch & Document features makes the BLK3D a handy tool for applications such as, construction site documentation, accident scene measurements, heritage and building renovation pricing. Taking building renovation as an example, pricing of any kind can be one of the most difficult tasks in business. For window fitters and painters among others, a quote for a client could be made very quickly using the BLK3D. With window fitters needing the dimension of each window and painters needing the area to calculate the paint required, the BLK3D speeds up this processes while remaining accurate.

Heritage is another interesting application for the BLK3D. Although, it extends past heritage, the ability to quickly measure and sketch inaccessible areas is made possible with Reality Capture. Such areas can be common with dilapidated buildings and ruins. Within the context of heritage, it may be of particular importance to keep the present condition intact, making some accessible areas no go areas. Poorly lit areas can be mitigated using the light adapter which provides a staggering amount of light to a dark room.

Whatever the application, the BLK3D brings the DISTO into the Leica's Reality Capture range. The handheld device is the first of its kind with potential applications in beyond what has been initially predicted. Both BLK3D and indeed the BLK360 scanner are available through Survey Instrument Services with full training and support also available. Contact a specialist sales consultant by visiting their website [sisirl.com](http://sisirl.com) or call 01-4568650.