



DOT PRODUCT

DPI-8 Kit Powered by Phi.3D 2.0 Software

Handheld 3D Data Capture on a Tablet

DotProduct develops high performance, easy-to-use solutions for capturing 3D data. Our technology is designed for mobile professionals who need high-quality spatial data, instantly. Our Phi.3D 2.0 software turns an NVIDIA SHIELD Android tablet into a fully mobile 3D-capture and -processing solution that delivers results before you leave the worksite.



Phi.3D 2.0 – Next Generation Mobile 3D Imaging Software

- » Capture and register 3D spatial data using only the processing power of a tablet – no PC or cloud service required!
- » Define the coordinate system on the tablet, register multiple datasets in the field, pull measurements on the fly, and integrate automatically with AprilTags in Phi.3D 2.0.

Truly Mobile

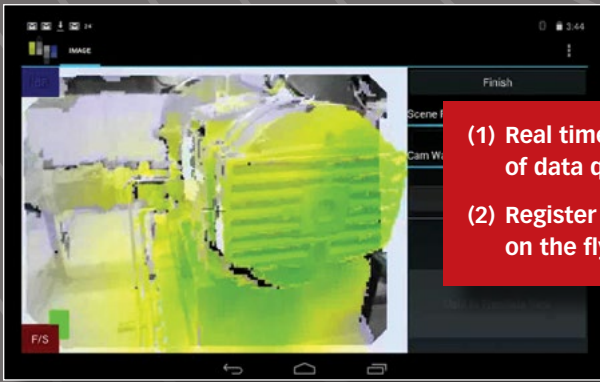
- Forget lugging around a laptop and cumbersome cables
- » Capture and process 3D spatial data directly on the tablet!
 - » One-handed operation: be safe and capture 3D while you traverse the area of interest.
 - » Get into hard-to-reach, occluded areas, inaccessible with other technologies.



Real Time

- » No surprises: leave the jobsite knowing you've collected the right data you need for your project.
- » DotProduct's Phi.3D technology provides users with real-time data quality feedback as the data is being acquired.
- » Instantly review point cloud data sets right on the tablet.

New Technology – Familiar and Proven Work Flows



- (1) Real time color coding of data quality.
- (2) Register point clouds on the fly!



Georeference & Take Measurements in the Field

- » Set the coordinate system on the tablet in seconds.
- » Measure vertical, horizontal, and point-to-point distances directly from the data on the job site.
- » Utilize survey targets or automatic AprilTags recognition on high precision jobs for even more accurate results.

Append Multiple Data Sets Together Automatically

- » Use the Append to Scan function to add new data to previously captured 3D spatial data. New data can be captured and appended on-the-fly without the need for additional targets or control.
- » With Phi.3D 2.0, utilize the Append to Add function to connect distinct data sets into the same coordinate system on the fly.

Export to Industry Formats

- » Use Phi.3D captured data with the desktop point cloud software you work with today. No need to change your current workflow.
- » Export in PTS, PTX, PLY, PTG or the native DP format for efficient storage and rapid data export. Binary files integrate directly with AVEVA LFM, Autodesk ReCap, Trimble RealWorks, CloudCompare, ClearEdge3D, Veesus Arena4D, and PanoMap.

The DotProduct DPI-8 Handheld 3D Imager Kit contains:	
1	8" Android Tablet computer with at least 16GB of storage (DotProduct reserves the right to provide greater than 16GB depending on availability)
1	License of DotProduct Phi.3D 2.0 software, preloaded and licensed to that tablet computer and PrimeSense Carmine 1.082 camera. One year of support and upgrades is included.
1	PrimeSense Carmine 1.082 red, green, blue and depth sensor.
1	8" tablet bracket with handle attachment
3	USB to micro USB connectors for connecting camera to tablet
1	Carrying case
1	Tablet charger

Test Facility Results

(measured distance in final post-processed model)

Range	Typical Accuracy	Minimum Accuracy
< 1 m (3.3 ft)	99.8%	99.6%
1 m to 2 m (6.6 ft.)	99.5%	99.2%
2 m to 3.3 m (11 ft.)	99.0%	98.6%
> 3.3 m (11 ft.)	Not Specified	Not Specified

DPI-8 Imager Performance

The data quality of the DPI-8 imager depends on range, temperature, ambient lighting conditions, reflectivity of the area of interest, operator skill and other factors. System accuracy is improved by using survey targets. System performance is degraded by long collection times, accumulation of frame-to-frame drift and lack of scene fitness induced by geometry and texture limitations.

The working range of the DPI-8 is from 0.6 m to 3.7 m (2 ft – 12 ft).

Illustrations, descriptions and technical specifications are not binding and may change.

DPI-8 Product Specifications - General	
Imager type	Compact, near infrared structured light and RGB 3D depth imaging system
User Interface	Android operating system
Data Storage	Onboard 16 GB or 32 GB flash drive
Data Transfer	USB 2.0/3.0, microUSB connector

DPI-8 Product Specifications - Physical	
Mass	< 1kg (2.2 lbs.)
Dimensions	23 cm x 27 cm x 8 cm (9 in x 10.5 in. x 3 in.)
Temperature	Tested operating range: 15 °C to 32 °C (60 °F to 85 °F)
Lighting	Not operational in direct sunlight
Humidity	Non-condensing



Please feel free to contact us for more details about our calibration and test procedures.

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