

QUICK START GUIDE

DIM320 Handheld Dimensioner

SICK

Sensor Intelligence.

1 Equipment

1.1 DIM320 Kit



- 1. Transport and carry case
- 2. Tablet PC along with charger
- 3. Freestyle sensor
- 4. Calibration plate
- 5. USB card reader
- 6. Micro SD with calibration plate data
- 7. Optical cleaning kit

1.2 DIM320 Kit



- 1. Start/Stop button and Status LED lights
- 2. USB cable and plug
- 3. Infrared cameras
- 4. Color camera and LED flash unit
- 5. Infrared projector with class 1 laser

1.3 DIM320 Kit



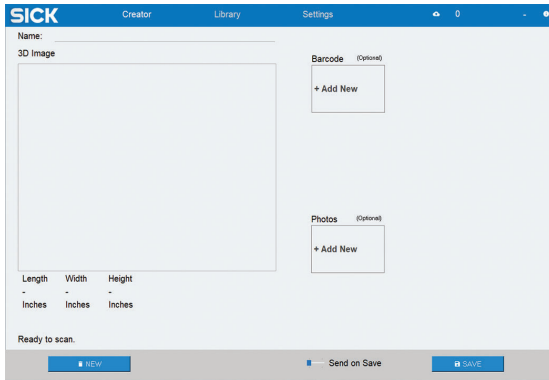
On connecting Freestyle with the tablet PC, status lights will turn on in the Start/Stop button. They indicate the following statuses:

Status	LED Color	Description
Initializing Scanner	Red	Scanner plugged in and software starting up.
Acquiring Tracking	Blinking Blue	Scanner needs to acquire tracking. Point at the object and hold it steady until tracking is acquired.
Scanning	Blinking Blue	Tracking is acquired and point data is displayed.
Lost Tracking	Red	Scanner loses tracking when moved too fast. Hold it steady pointed at object.
Tracking Acquired	Blinking Blue	Scanner reacquires tracking.
Scan Complete	Same as at the end of previous scan	Ready to scan.
Not Ready to Scan	Same as at the end of previous scan	Start button pressed before scan is closed out.

2 DIM320 Creator Software

Start DIM320 Creator software on the tablet PC:

- ▶ If required, log in using default password in the tablet PC: sickstick
 - ▶ Double click DIM320 software icon on the desktop
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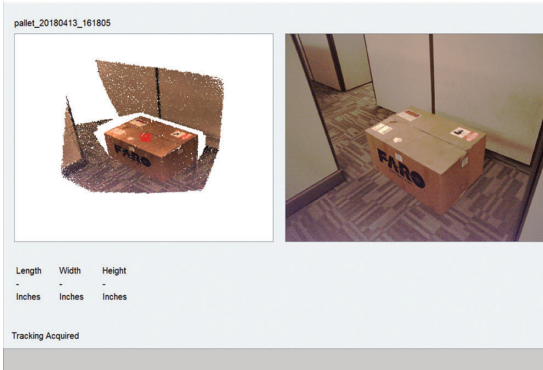
2.1 Capture Point Cloud

Prerequisites:

- ▶ Freestyle sensor connected with the tablet PC.
 - ▶ Status on bottom left of tablet PC states “Ready to Scan”.
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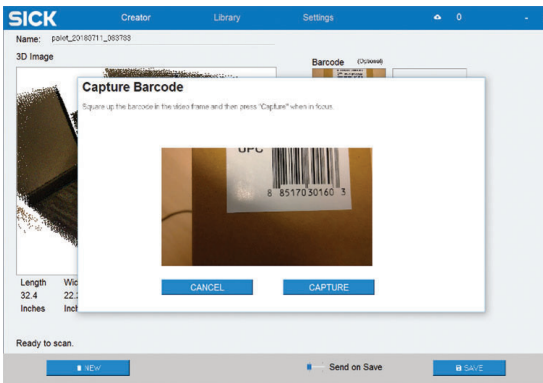
Click (press and release) Freestyle button to start a new scan. Refer to the image on the next page. The left part of the screen will display point cloud as it is captured and the right side displays the video. Initial few scans are changed to red color points, which in the overall point cloud appear as a red dot as shown in the next image. With some training, an operator can point the sensor precisely to the object to be dimensioned using this red dot, which helps the system identify which object to process.

Note that the point cloud viewer on the left can be rotated as desired using finger swiping to inspect the object just captured.

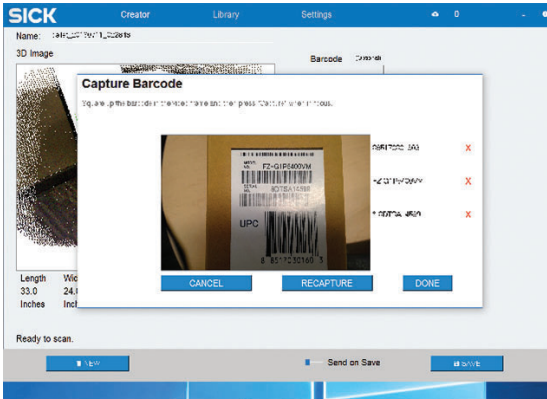


2.2 Capture Barcode

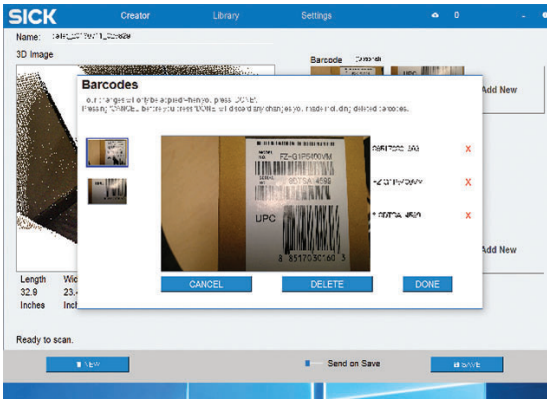
On clicking “+ Add New” under the barcode section of Creator screen, the following screen displays the barcode capture screen.



Clicking “Capture” produces more options including “Recapture” and “Done”. Automatic attempt is made to decode the captured pictures of all barcodes. Clicking red X will remove a decoded barcode. Clicking “Done” saves the barcode.

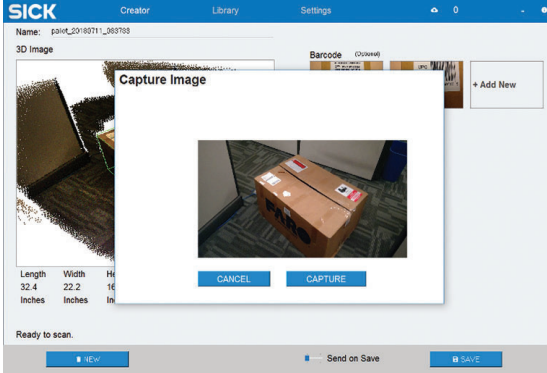


Clicking an already captured image of barcode on the Creator screen brings up barcode view/delete screen. This screen allows viewing and deleting each barcode.

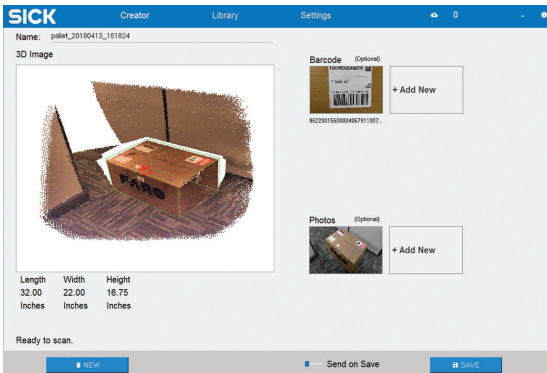


2.3 Capture Image

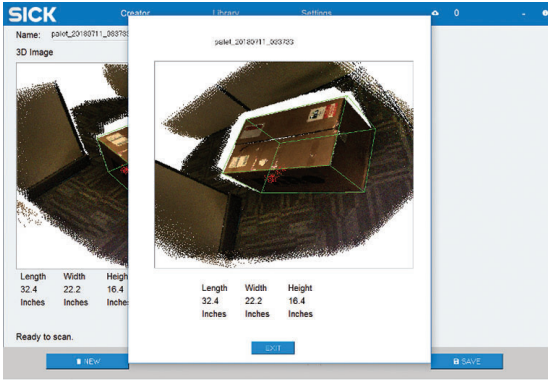
On clicking “+ Add New” under Photos section of Creator screen, the following screen displays the image capture. Clicking “Capture” will capture the image and provide more options including “Recapture” and “Done”. Clicking “Done” will go back to Creator screen. Clicking an already captured image will provide options to view and delete.



After capturing barcode and images, the main Creator screen will display all captured data.

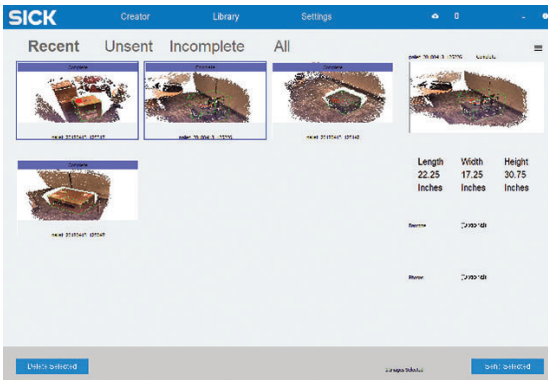


At this point, clicking the point cloud window will bring up the point cloud viewer, which allows operations such as rotating and zooming in/out.

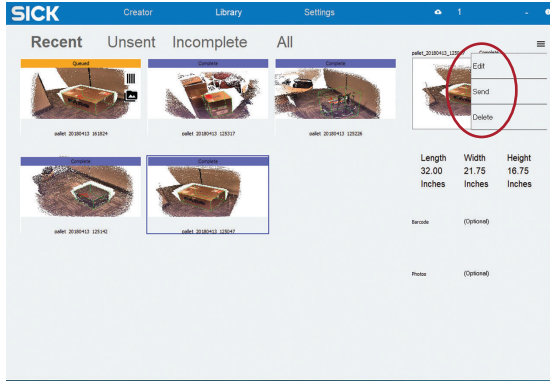


2.4 Library Screen

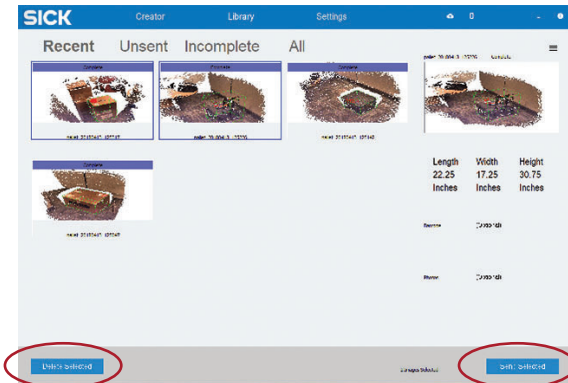
Library stores history of scans and allows operations such as Edit, Delete and Send.



The following screen shows operations available on selecting a single scan.



The following screen shows operations available on selecting multiple scans.



3 On-Site Calibration

DIM320 is calibrated before delivery. The calibration may have been affected under certain transport conditions. If so, recalibrate it so that it is ready to capture accurately. The best time to recalibrate DIM320 is on-site, preferably daily right before starting to capture.

DIM320 is shipped with Calibrate software installed on the tablet PC. Double click on icon on the home screen to start calibration. Ensure DIM320 software itself is not running before starting to calibrate as only one software can connect to the Freestyle sensor at one time.



Each DIM320 kit includes a calibration plate and a corresponding calibration file, which can be found on the micro SD card that is contained in the transport and carry case.

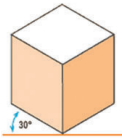


Please refer to the operating manual for more details on calibration procedure.

4 Operating Guidelines

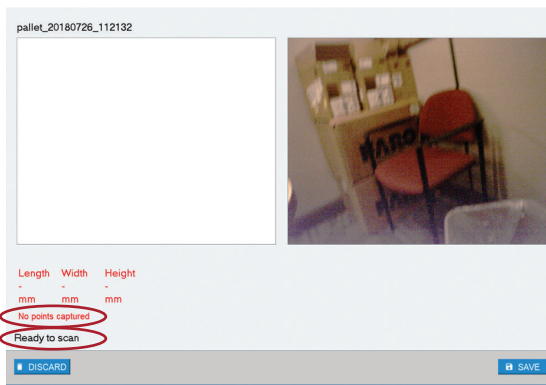
4.1 Using Handheld

- ▶ Start scanning in an isometric view (covering 3 sides) as much as possible. For very tall objects, use a ladder as needed
- ▶ Use more of gross movement to reduce incidents of “lost tracking”
- ▶ Use the movement in the following order: legs, shoulder, elbow, wrist
- ▶ If one position, use shoulder and elbow more than wrist
- ▶ Move steadily instead of abruptly



4.2 On Screen Messages

Status messages and dimensioning errors show up on screen to help operator. Dimensioning errors are red text and status messages are in black text. They are labeled in an intuitive fashion and describe what you see. Refer to the Operating Instructions for a list of such messages.



Australia

Phone +61 3 9457 0600
1800 334 802 – tollfree
E-Mail sales@sick.com.au

Austria

Phone +43 22 36 62 28 8-0
E-Mail office@sick.at

Belgium/Luxembourg

Phone +32 2 466 55 66
E-Mail info@sick.be

Brazil

Phone +55 11 3215-4900
E-Mail marketing@sick.com.br

Canada

Phone +1 905 771 14 44
E-Mail information@sick.com

Czech Republic

Phone +420 2 57 91 18 50
E-Mail sick@sick.cz

Chile

Phone +56 2 2274 7430
E-Mail info@schadler.com

China

Phone +86 20 2882 3600
E-Mail info.china@sick.net.cn

Denmark

Phone +45 45 82 64 00
E-Mail sick@sick.dk

Finland

Phone +358-9-2515 800
E-Mail sick@sick.fi

France

Phone +33 1 64 62 35 00
E-Mail info@sick.fr

Germany

Phone +49 211 5301-301
E-Mail info@sick.de

Hong Kong

Phone +852 2153 6300
E-Mail ghk@sick.com.hk

Hungary

Phone +36 1 371 2680
E-Mail office@sick.hu

India

Phone +91 22 4033 8333
E-Mail info@sick-india.com

Israel

Phone +972 4 6881000
E-Mail info@sick-sensors.com

Italy

Phone +39 02 274341
E-Mail info@sick.it

Japan

Phone +81 3 5309 2112
E-Mail support@sick.jp

Malaysia

Phone +6 03 8080 7425
E-Mail enquiry.my@sick.com

Mexico

Phone +52 472 748 9451
E-Mail mario.garcia@sick.com

Netherlands

Phone +31 30 2044 000
E-Mail info@sick.nl

New Zealand

Phone +64 9 415 0459
0800 222 278 – tollfree
E-Mail sales@sick.co.nz

Norway

Phone +47 67 81 50 00
E-Mail sick@sick.no

Poland

Phone +48 22 539 41 00
E-Mail info@sick.pl

Romania

Phone +40 356 171 120
E-Mail office@sick.ro

Russia

Phone +7 495 775 05 30
E-Mail info@sick.ru

Singapore

Phone +65 6744 3732
E-Mail sales.gsg@sick.com

Slovakia

Phone +421 482 901201
E-Mail mail@sick-sk.sk

Slovenia

Phone +386 591 788 49
E-Mail office@sick.si

South Africa

Phone +27 11 472 3733
E-Mail info@sickautomation.co.za

South Korea

Phone +82 2 786 6321
E-Mail info@sickkorea.net

Spain

Phone +34 93 480 31 00
E-Mail info@sick.es

Sweden

Phone +46 10 110 10 00
E-Mail contact@sick.se

Switzerland

Phone +41 41 619 29 39
E-Mail contact@sick.ch

Taiwan

Phone +886 2 2375-6288
E-Mail sales@sick.com.tw

Thailand

Phone +66 2645 0009
E-Mail Ronnie.Lim@sick.com

Turkey

Phone +90 216 528 50 00
E-Mail info@sick.com.tr

United Arab Emirates

Phone +971 4 88 65 878
E-Mail info@sick.ae

United Kingdom

Phone +44 1727 831121
E-Mail info@sick.co.uk

USA

Phone +1 800 325 7425
E-Mail info@sick.com

Vietnam

Phone +84 945452999
E-Mail Ngo.Duy.Linh@sick.com

Further locations at www.sick.com

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Sensor Intelligence.