

Nikon Metrology Software U-DP



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Nikon Metrology for Ubiquitous Networking

The first browser-based metrology software for Nikon measuring microscopes and profile projectors

Nikon Metrology Software U-DP was designed for metrology engineers who need to make quick and easy measurements with Nikon measuring microscopes and profile projectors.

Easy-to-connect browser-based software

Nikon Metrology Software U-DP is browser-based geometric dimensioning software (patent pending). Nikon measuring instruments can be effortlessly connected to desktop PCs, laptops or PDAs via Ethernet or even WiFi through a Web browser such as Safari, Internet Explorer or Firefox.

Icon layout and size compatible with PDAs


Nikon Metrology Software U-DP is designed for compatibility with widely used PDA devices. Vertical or horizontal layout can be selected depending on PDA type. All icons are appropriately sized for touch panel interfaces.

Interactive icons and navigation

Interactive icons and navigation enable immediate operation. Simply select tool icons and click on or touch the browser to enter points for geometrical construction and dimensioning.

Keep your measurement data with you

All measurement results are automatically saved on the USB flash disk and can be copied to a PC or PDA as ASCII data. To present numerical data, simply open the results file or copy the data to a memo pad.



UDPDATA.TXT

Z = 0.000

Intersection(L-L) 16:57:03

Theta1 = 359.998

Theta2 = 290.070

Theta = 69.928

X = 10.290 Y = 4.316

Pitch 16:58:33

P = 0.000 L = 0.000

W = 1.854

Pitch 16:58:43

P = 6.259 L = 6.259

W = 6.805

Point 19:04:23

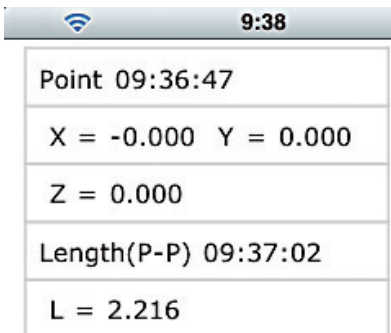
X = 4.919 Y = -2.300

Z = 0.000

Point 19:14:02

X = 5.064 Y = 1.904

Z = 0.000



9:38

Point 09:36:47

X = -0.000 Y = 0.000

Z = 0.000

Length(P-P) 09:37:02

L = 2.216

Measurement results are saved on a USB flash disk.

Data copy icon and results menu on a PDA screen

Results printout with serial cable connection

With a specified Nikon serial printer, measurement results can be printed for immediately available hard copies.



U-DP operation window on Safari Internet browser



Nikon Metrology Software U-DP on a WiFi PDA device



Nikon Metrology Software U-DP on a laptop PC



Serial printer for results output from U-DP

A variety of measurement tools to meet all metrology needs

Measurement tool menu - datum setting, feature, construction

A variety of measurement tools, such as 2-1 skew alignment, point, circle and point to line distance, are available to meet different metrology requirements.

Feature measurement



Single-point XY coordinates




Mid-point XY coordinates from two points



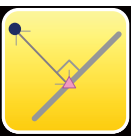
Circle diameter and XY coordinates from three points

Construction


Distance



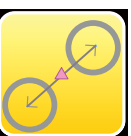
Point to point distance with XY coordinate differences




Point to line distance with XY coordinates on projected point




Circle center to line distance with XY coordinates on projected point and circle diameter



Circle to circle distance - nearest, center and farthest modes




Intersection coordinates and angle from two line features




Intersection coordinates from line to circle

Pitch



Pitch distance measurement - single edge distance from line, mid point coordinate differences in X and Y directions



X and Y coordinate reset icons are handy for quick and remote reset of DRO values.

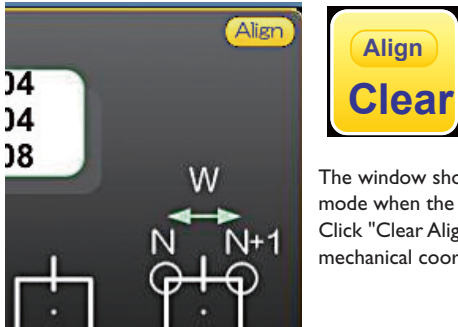
System requirements

Nikon measuring instruments	MM-200/400/800 with backpack controller interface models Nikon Profile Projector and previous Nikon measuring microscope models with a retrofit counter unit
Web browser	Compatible with widely used Internet browsers - Safari, FireFox, Internet Explorer
Ethernet connection	100 Base T
WiFi connection	Please consult Nikon or a Nikon distributor for recommended access points.
PDA devices	Compatible with WiFi communications devices such as PDAs and Internet communicators
Important notice	Nikon Metrology Software U-DP requires software license activation before use. Please contact your nearest dealer, distributor or Nikon branch for assistance.

2-1 skew alignment

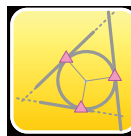


Two points for line feature followed by one projected point to set datum

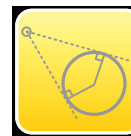


The window shows "Aligned" mode when the skew is complete. Click "Clear Align" to return to mechanical coordinates.

Tangent



Inscribed circle tangent point coordinates inside three line features



Tangent coordinates from single point to circle

Intersection



Intersection coordinates and angle from two line features



Intersection coordinates from line to circle

Coordinate reset

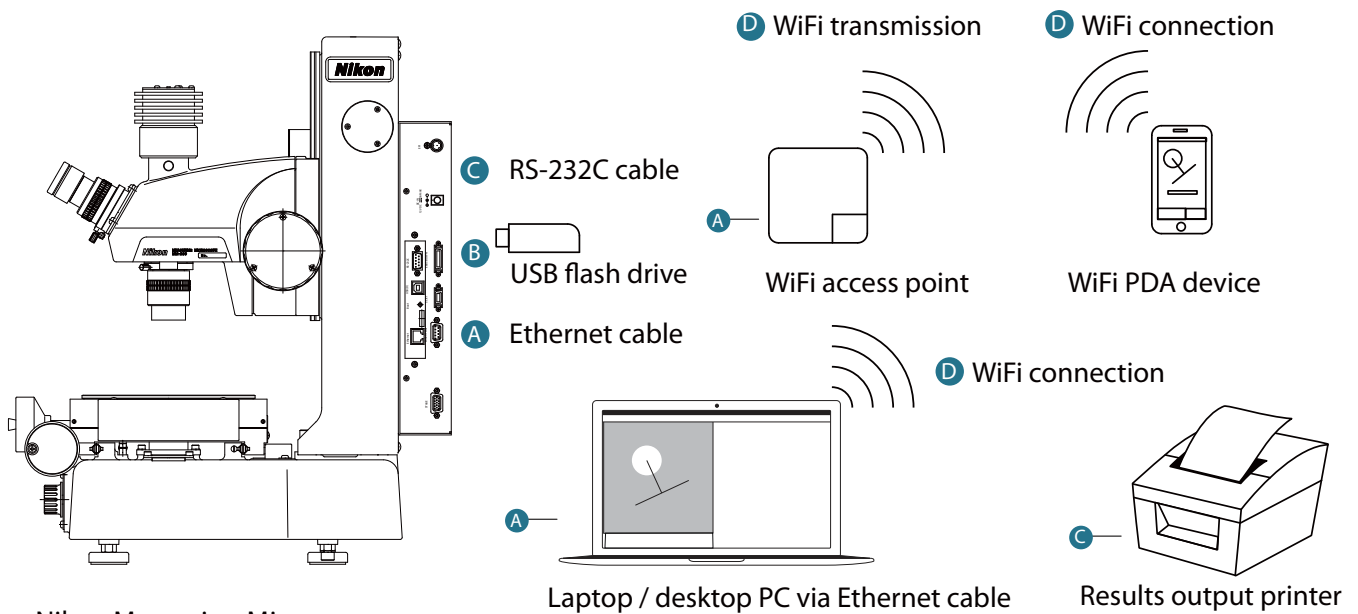


X=0



Y=0

System diagram



Nikon Measuring Microscope
MM-400/800 with backpack controller

Retrofit counter unit
for Nikon Profile Projector and
Nikon Measuring Microscope MM-40/60

Nikon Metrology Software U-DP -
supplied on USB flash drive

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WARNING TO ENSURE CORRECT USAGE, READ THE CORRESPONDING MANUALS CAREFULLY BEFORE USING YOUR EQUIPMENT.

ISO/IEC 17025 Certified

Nikon Corporation Instruments Company has been certified as an ISO/IEC 17025 accredited calibration laboratory for projectors and measuring microscopes by the Japan Accreditation Board for Conformity Assessment.

Date of accreditation: September 8, 2006

Scope of accreditation: X/Y-axis indication accuracy of measuring microscopes
X/Y-axis indication accuracy and magnification accuracy of projectors

Accredited section: CS 1st Engineering Section, Sales Department, Industrial Instruments Division
Calibration site: Customer's laboratory (field service)



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