

# iSolution DT

## i-Solution™

### iSolution Chameleon

#### iSolution Lite



Specification	iSolution DT	i-Solution	iSolution Lite	iSolution Chameleon	Specification	iSolution DT	i-Solution	iSolution Lite	iSolution Chameleon
<b>Acquire</b>	●	●	●	●	<b>View</b>	●	●	●	●
<b>Input Device</b>					<b>Zoom Tools</b>				
<ul style="list-style-type: none"> <li>1) All TWAIN Support Devices</li> <li>2) All WDM Support Devices</li> <li>3) All i-Link from Sony Support Devices</li> <li>4) Optronics digital cameras</li> <li>5) Jenoptik ProgRes digital cameras</li> <li>6) Nikon digital cameras</li> <li>7) Lumenera digital cameras</li> <li>8) Pixera digital cameras</li> <li>9) Scion digital cameras</li> <li>10) XLi digital cameras</li> <li>11) Matrix vision mvBlueFox digital camera</li> <li>12) Olympus digital cameras</li> <li>13) Leica digital cameras by TWAIN</li> <li>14) Carl Zeiss AxioCam digital cameras by TWAIN</li> <li>15) Qimaging digital cameras</li> <li>16) Pixelink digital cameras</li> <li>17) Diagnostic Instruments Spot digital cameras</li> <li>18) FlashBus frame grabbers</li> <li>19) Matrox frame grabbers</li> </ul>					<ul style="list-style-type: none"> <li>1) Zoom In, Out, and 100%</li> <li>2) Zoom In Window for More Accurate Edge Detect</li> <li>3) Zoom 10% to 1600% User Defined Fit to Window or Image Status Bar Context Window to Manipulate Several Images</li> </ul>				
<b>Image Capture</b>					<b>Edit</b>	●	●	●	●
<ul style="list-style-type: none"> <li>1) Time Lapse Capture</li> <li>2) Movie Recordings in AVI, MPG, MPEG, MOV</li> <li>3) Crosshair Generation on Live Preview Window</li> <li>4) Grid Mask on the Live Preview Window according to the Calibrated Scale</li> <li>5) Measurement on Live Preview Window</li> </ul>					<ul style="list-style-type: none"> <li>Undo, Redo, Copy, Paste, Paste New, Delete</li> <li>Delete All, Annotate, Image Information</li> </ul>				
<b>Image File Format</b>					<b>Annotate</b>				
<ul style="list-style-type: none"> <li>jpg, jpeg, jpe, tif, tiff, bmp, gif, pcx, tga, mpeg, avi, mov, img, rpt, txt and etc.</li> </ul>					<ul style="list-style-type: none"> <li>Line, Polyline, Spline, Rectangle, Ellipse, Text label</li> </ul>				
<b>Overlay</b>					<b>Process</b>				
<ul style="list-style-type: none"> <li>1) Crosshair</li> <li>2) Grid mask</li> <li>3) Image</li> <li>4) Marker</li> </ul>					<ul style="list-style-type: none"> <li>Filter, BCG Control, Pseudo Color</li> </ul>	●	●	●	●
<b>Image</b>	●	●	●	●	<b>Filter</b>				
<ul style="list-style-type: none"> <li>Mode Change, Clone, Crop, AOI, Resize</li> <li>Rotate Split, Combine Color Plane</li> </ul>					<ul style="list-style-type: none"> <li>1) Edge : Gradient, Kirsch, Laplas, Sobel, Variance</li> <li>2) Enhance : Auto Brightness and Contrast, Average, Background Correction, Equalize, Median, Sharping, Smooth</li> <li>3) Morphology: Clean, Close, Dilate, Erode Fill Holes, Open, Split</li> <li>4) Special : Emboss, Negative</li> </ul>	●	●	●	●
<b>Image Mode Change</b>					<b>Focus Enhancement (Multi Focus)</b>				
<ul style="list-style-type: none"> <li>Grayscale, RGB, HSB, YUV, 8bit and 16bit per Channel</li> <li>AOI Control</li> <li>1) Rectangle, Arbitrary Rectangle, Ellipse, Arbitrary Ellipse, Polygon, Spline Shape, Magic Wand</li> <li>2) Copy, Paste, Crop AOI</li> </ul>					<ul style="list-style-type: none"> <li>1) Combine Individual Partly Focused Images into a Single In-Focus Composite Image</li> <li>2) Combine without Trace</li> <li>3) Auto Compensating Displaced Images from Stereo Microscopes</li> </ul>	●	●	●	●
<b>Combine</b>					<b>Image Stitching</b>				
<ul style="list-style-type: none"> <li>1) Split Color Plane RGB, HSB, YUV</li> <li>2) Combine Color Plane RGB, HSB, YUV</li> <li>3) Combine Color Images directly by Mean, RGB, Fluorescence Mask and Add</li> </ul>					<ul style="list-style-type: none"> <li>1) Perfect Auto Montage. Automatic Images Stitching by Automated Microscope Stage.</li> <li>2) Auto and Manual Image Stitching</li> <li>3) Stitching without Trace and Correcting any Irregularities in Brightness</li> </ul>	●			
<b>Sequence Control</b>					<b>Calibration</b>	●	●	●	●
<ul style="list-style-type: none"> <li>1) Play Forward, Backward</li> <li>2) Making Movie File(mpg, avi, mov) with Still Images</li> <li>3) Split Single Image from Sequence File</li> </ul>					<ul style="list-style-type: none"> <li>1) Full Auto Calibration</li> <li>2) Semi-Auto Calibration</li> <li>3) Special Calibration X and Y</li> <li>4) Insert Calibration Marker</li> <li>5) Split Calibration Marker 4 and 16</li> <li>6) Save and Open Calibration</li> </ul>				
					<b>Large Size Object Measurement</b>	●			
					<ul style="list-style-type: none"> <li>1) Auto Objects Movement Tracking</li> <li>2) Semi-Auto Objects Movement Scan</li> <li>3) Manual Objects Movement Scan</li> <li>4) Graphic Window</li> <li>5) Generation of the Secondly Measurement Data from the First Measurement Data</li> </ul>				
					<b>Development</b>	●			
					<ul style="list-style-type: none"> <li>Customized Modules and Application</li> </ul>				

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<b>Auto Edge Detector</b>	●			
<ol style="list-style-type: none"> <li>1) Auto Line Edge Detector</li> <li>2) Auto Point Detector</li> <li>3) Auto Circle and Arc Edge Detector</li> <li>4) Auto Angle Detector</li> </ol>				
<b>Grid Mark</b>	●	●	●	●
<ol style="list-style-type: none"> <li>1) Grid Mark on the Live Preview Window according to the Calibrated Value</li> <li>2) Scale Marker on the Live Preview Window</li> <li>3) Grid Mark on the Captured Image according to the Calibrated Value</li> <li>4) Crosshair Generation on the Live Preview Window</li> </ol>				
<b>Measurement</b>	●	●	●	●
<ol style="list-style-type: none"> <li>1) Point, Straight Line, Spline, Polyline, Polygon Rectangle, Circle, Best Fit Circle, Circle By 3 Points, Angle, Angle Between 2 Lines, Distance, Parallel Line Width, Lines From Common Reference Point, Perpendicular Line Length</li> <li>2) Auto Tracing Objects</li> <li>3) Select Tool for Edit Measurements</li> <li>4) Measurement Data</li> <li>5) Measurement Statistics</li> </ol>				
<b>Export to Excel</b>	●	●	●	●
<ol style="list-style-type: none"> <li>1) Export to Excel Gray Image Data</li> <li>2) Export to Excel Overlay and Original Image Measurement Data, Statistics, and Chart</li> </ol>				
<b>Save</b>	●	●	●	●
<ol style="list-style-type: none"> <li>1) Saving Data with TXT File Format</li> <li>2) Saving all the image and the measurement data together with img File Format</li> </ol>				
<b>Report</b>	●	●	●	●
<b>Report Generator</b>				
<ol style="list-style-type: none"> <li>1) Create Report</li> <li>2) Insert Image and Data</li> <li>3) Insert other OLE Objects</li> </ol>				
<b>Window</b>	●	●	●	●
Split Horizontal, Split Vertical, Cascade Tile Horizontal, Tile Vertical, Arrange icons				
<b>Dynamic User Interface (UI)</b>				
<ol style="list-style-type: none"> <li>1) Classic</li> <li>2) Modern</li> </ol>				
<b>Count and Size</b>				
<b>Auto Count Objects</b>	●	●		●
<ol style="list-style-type: none"> <li>1) Auto Detect Objects</li> <li>2) Edit the Counted Objects by Add, Subtract, Cut, Split, and Morphological Filters</li> <li>3) Set the Measurement Range</li> </ol>				
<b>Manual Objects Count</b>	●	●		
<ol style="list-style-type: none"> <li>1) Rectangle, Arbitrary Rectangle, Ellipse, Arbitrary Ellipse, Polygon, Spline Shape, Magic Wand</li> <li>2) Invert Objects, Separate Object</li> </ol>				

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<b>Measurement Parameters</b>	●	●		
Area, Hole Area, Perimeter, Hole Perimeter, Max Length, Max Width, Average Dimension, Size by X, Size by Y, Average Chord, Min Feret Diameter, Max Feret Diameter, Average Feret Diameter, Equal Circle Diameter, Major Ellipse Diameter, Minor Ellipse Diameter, Line Length, Line Width, Ribbon Length, Ribbon Width, Circle SF, Ellipse SF, Roundness, Roundness-ALT, Elongation, Center X, Center Y, Angle, Red Color, Green Color, Blue Color, Hue, Intensity(Min), Intensity(Max), Intensity(Mean), Intensity(Integral), Intensity(Standard Deviation), %Area, %Hole, Convex Perimeter, Biovolume sphere/ ellipsoid/ rod/ cone/ irregular, Triangle Ri/ Ro/ Ai/ Ao/ C/ ER, Round Davg/ Dmax/ Dmin/ DE/ DR, Polygon Lmax/ Lin/ RD/ LR				
<b>Measurement Data</b>				
<ol style="list-style-type: none"> <li>1) Measurement Data</li> <li>2) Statistics Data from all Parameters</li> <li>3) Classification and Statistics for each Parameters</li> <li>4) Export to Excel Original Image, Overlay image Measurement Data, Statistics, and Chart in one step</li> </ol>	●	●	●	●
<b>Objects Editing</b>	●	●		
Target objects can be sorted by more than 65 measurement parameters as well as by the simple bright and color difference.				
<b>Data Collector and Macro</b>	●	●		
<b>Profile</b>	●	●	●	●
<ol style="list-style-type: none"> <li>1) Straight Line</li> <li>2) Polyline</li> <li>3) Parallel Line</li> <li>4) Select and Change</li> </ol>				

**iSolution DT includes all the below features also.**

**Caliper**

**Phase Analysis**

**Densitometry**

**Graphite analysis in Nodular Cast Iron**

(ASTM A247, ISO 945, KS D4302, JIS G5502)

**Grain Size Measurement** (ASTM E112)

**Chart Navigator**

**Non-metallic Inclusion Rating Analysis** (ASTM E45, ASTM E1122, ISO 4967  
DIN 50602, KSD 0204, JIS G0555)

**Thickness Measurement**

**Average Width Measurement**

**Perfect Focus Enhancement**

**Fruit Size Analysis**

**Motorized Stage Control**

**SDK** (Software Development Kit)