

Quick Manual of RationalVue

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Welcome RationalVue



 爱科腾瑞科技(北京)有限公司
External-Array Software, Inc.

Add: Room 507, Site C, Focus Square, No.6 Focus East Avenue Wangjing
Chaoyang District Beijing

Postcode: 100102

Tel: 010-64787138

Service: 010-64787138; 64787139; 84785189; 84785190

Fax: 010-64787743

Web: www.external-array.com.cn

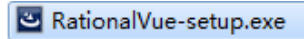
E – Mail : info@external-array.com.cn

1. RationalVue Installation & Configuration

1.1 RationalVue Installation

Insert the RationalVue installation CD to CD ROM

Click RationalVue-Setup file to start the installation



Click the "I agree" to accept the software license agreement

The destination folder: If you do not use the default path, select or type a new path and folder. If you choice the default path and folder, click "OK"

Click "Install" to complete the installation

1.2 Configuration

The screenshot shows the 'SystemConfig' window with the following sections:

- Machine:** Controller (Offline), Stabilize Time(ms) (200), Minimum Z Scale (-200).
- Camera:** Capture Card (Offline), Port (0).
- Language:** UI Language (English), Output Language (English).
- Options:** Joystick (None), AutoLens (Manual), Port (), TouchProbe (Disable).
- Sensor:** PtLnSensor (None), Port (), Stabilize Time(ms) (0).
- Lamp:** Lamp (Manual).
- Error Map:** EM (), EM1 (), with OK and Cancel buttons.

Machine（Machine Setup）		Options（Options）	
Controller(Controllor)	Controller and counter card selection	Joystick	DirectInput/JT/ZT
Stablize Time（ms）	Machine stability time, in milliseconds	Autolens	Manual / Auto /Pomeas
Minmum Z Scale	Minimum Z Scale	TouchProbe	Activation / deactivation
Camera（Camera & Video）		Sensor	

Capture Card	Camera & Video card selection	PtLnsensor	
Port	Video card Port		
Standard	Nts and Pal System setting		
Language		Lamp (Lamp)	
UI Language		Lamp	Lamp
Output language		Bottom	UWC6001/UWC4000 Selection
		CoAxis	UWC4000 Coaxial optical control
ErrorMap (Error Compensation)			
EM: Error Compensation specified file path (supports 21 Error Compensation or support plane array compensation)			
EM1: Error Compensation specified file path (supports 21 Error Compensation or support plane array compensation)			

1.3 Software Dongle installation

Plug the dongle, install the software lock driving

The user must install Dong (also called code clock) first to run RationalVue.



Insert the Dongle into USB port and operating system will identify new hardware automatically:



Prompt1: Found new hardware

Prompt2: identify the type of new hardware

Prompt3: new hardware has been installed and can be used.

Once the system pops up "new hardware has been installed and can be used." RationalVue can be

started.

Note:

Please do not close the computer power during installation.

If the dongle is inserted into another USB port, and the RationalVue has never been inserted in that port, the setup wizard will rerun the dongle and this process is normal.

When RationalVue is running, please do not pull out the dongle, otherwise unexpected errors will occur.

1.4 Software Licensing Description

Software Numbering:

Software's Numbering, on the software's numbering packaging, engraved with AKE **** laser tag.

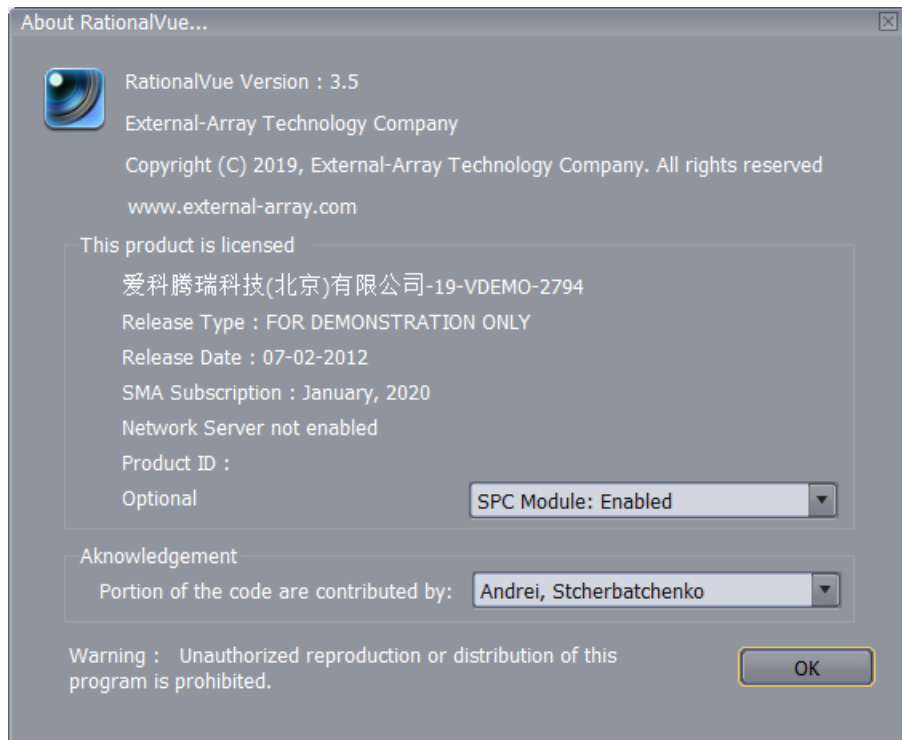
Authorized:

Any RationalVue software sold by the External-Array Software, Inc., are equipped with a formal software authorization, covered with External-Array Software, Inc.'s seal.

We will provide a formal authorization to External-Array Software, Inc.'s partners, please connect our partners to request software authorization.

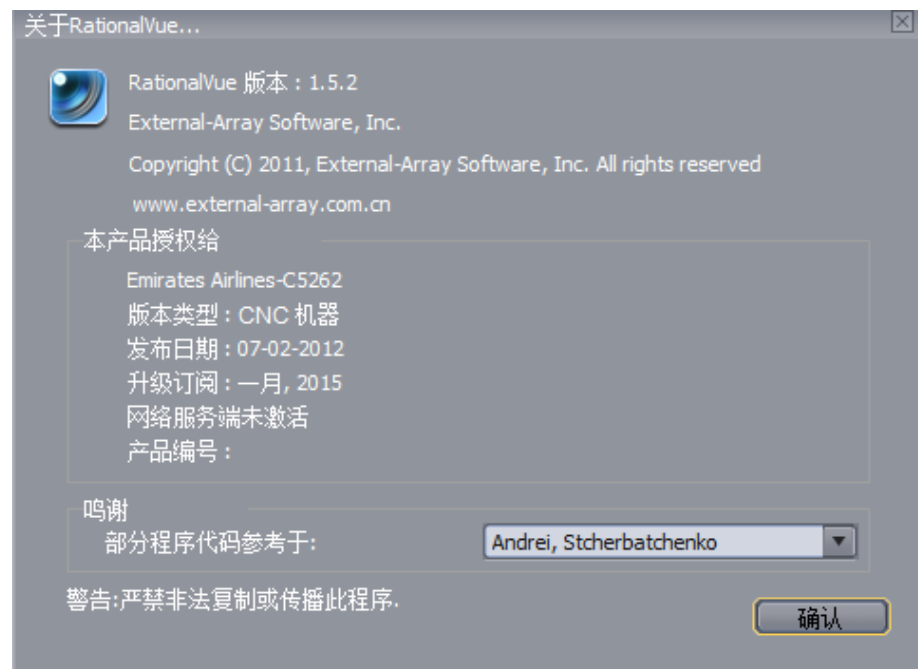
For details, consult the External-Array Software, Inc.'s service hotline 010-64787138; 647887139; 84785189; 84785190. Email: info@external-array.com.cn

Authorization Name:



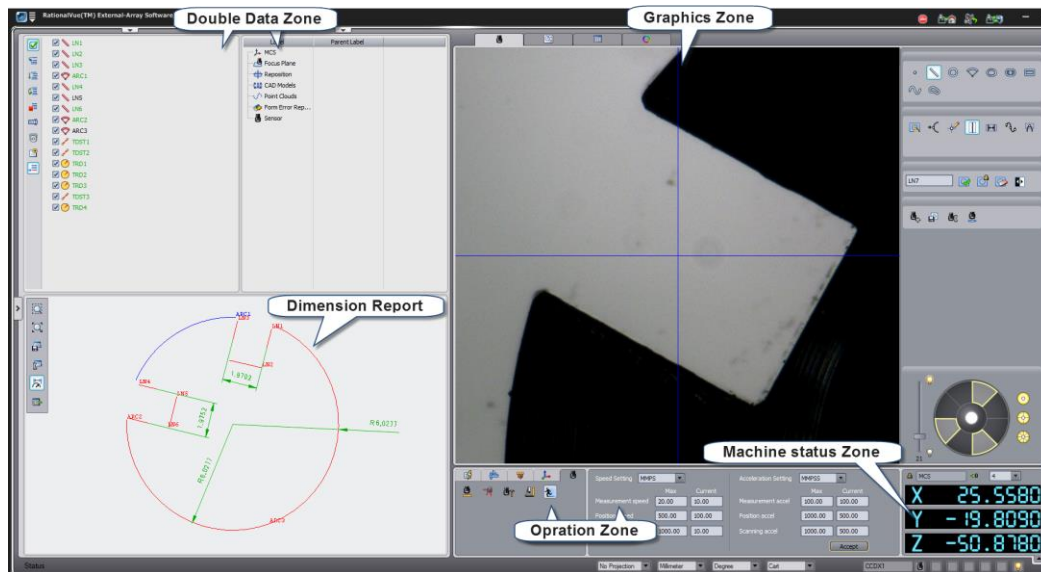
Above picture: Authorization for "External-Array Software, Inc." the version type is "demo", indicating that this dongle is copyrighted by our company / External-Array Software, Inc., the software locks only for DEMO Demos and it's not for sale.

Official sales of software dongle authorization, in the following example;



This software is licensed to represent: "Emirates Airlines" company.
 Version types are: CNC machine

2. Interface Introduction



Double Data Zone: Store measurement data、construction data、calculated result、program、tolerance data、coordinate data

Graphics Zone: Can achievement workpiece check, machine moves and measurement, even can complete data output

Machine status Zone: The machine can be moved, check the position of the machine and check element data with element Form

Operation Zone : Complete machine probe construction, probe calibration, establish the coordinate, constructed elements and tolerances computing

Navigate Zone: To be completed the element definitions, machine navigation and navigation constructed

In addition with graphics area juxtaposed area have: Image measuring window, the graphics window, the output window, graphical reporting window and FormError window

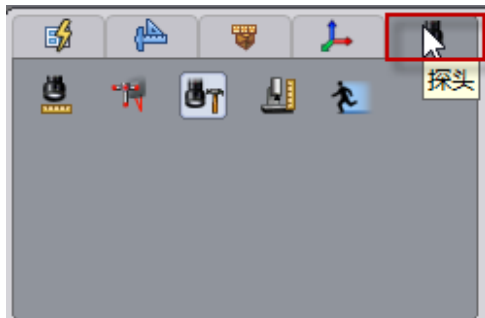
3. Build Probe

3.1 Construction video probe

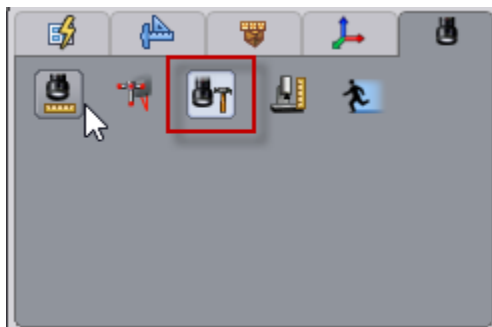
Imaging probes divided into automatic zoom and manual zoom, the following were introduced the way to build these two kind of probe.

Construction of automatic zoom lens (Auto Zoom)

Select “Sensor”



Select “Build Sensor”



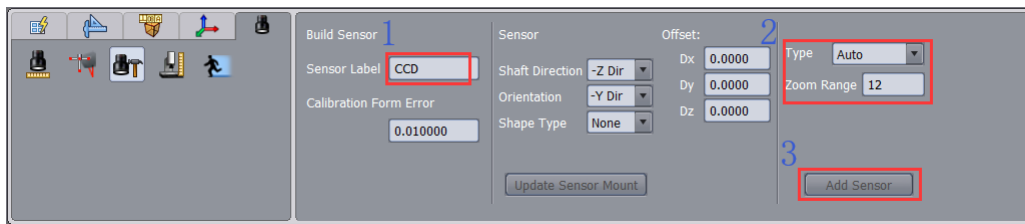
Check PH10VIP in build sensor area.

Renishaw系列				<input checked="" type="checkbox"/> Renishaw	<input checked="" type="checkbox"/> 其他
名称	长度△	球直径△	数字		
定制测头					
<input type="checkbox"/> AM1	15.50		A-1026-0320		
<input type="checkbox"/> AM2	10.00		A-1036-0080		
<input type="checkbox"/> MCP	54.70		A-1311-0096		
<input checked="" type="checkbox"/> PH10VIP	50.00	30.00	Video Probe		
<input type="checkbox"/> PH5	32.50		A-1045-1883		
<input type="checkbox"/> PH5(FT)	64.00		A-1045-1883		
<input type="checkbox"/> PH5(LT)	64.00		A-1045-1883		
<input type="checkbox"/> PH5(RR)	64.00		A-1045-1883		
<input type="checkbox"/> PH5(RT)	64.00		A-1045-1883		
<input type="checkbox"/> PH6	28.00		A-1046-5097		
<input type="checkbox"/> PH6M	40.00		A-1074-0020		
<input type="checkbox"/> TP1	46.06		A-1041-7540		
<input type="checkbox"/> TP800	120.00		V-0000-0001		

Add Sensor

Change label, according to user's habit

Select the lens type to "Automatic", and set the rotation multiples
Add sensor



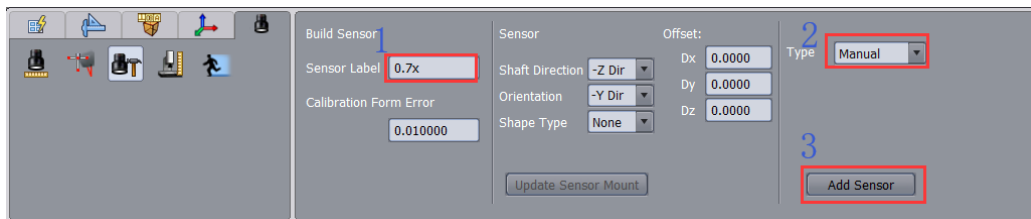
Construction manual zoom lens

There has only one different between construction manual zoom lens and automatic zoom lens is the last step, "adding probe".

Change label, according to user's habit

Select the lens type to "manual"

Add probe



Note: Manual zoom lens need to add more than one probe, such as continue to add 1.5 times, 2.0 times, 2.5 times ...,

3.2 Construction touch probe

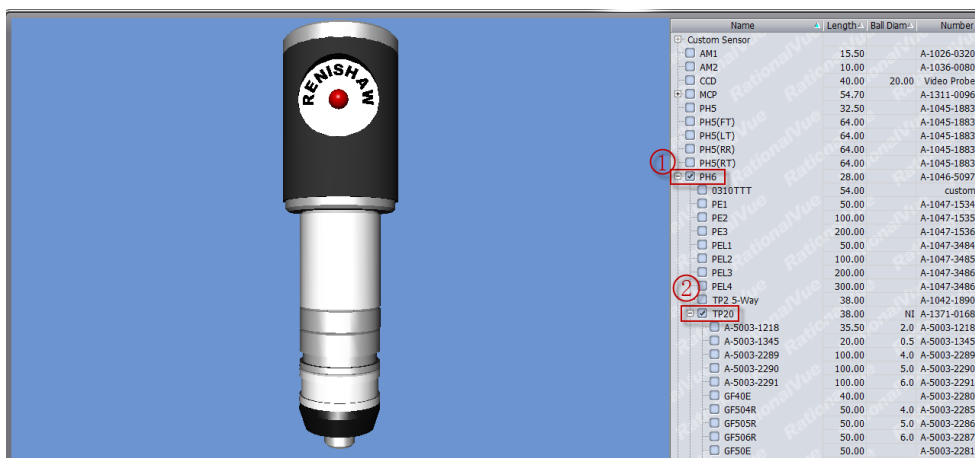
Select "Coordinate and Sensor"

Select "Build Sensor"

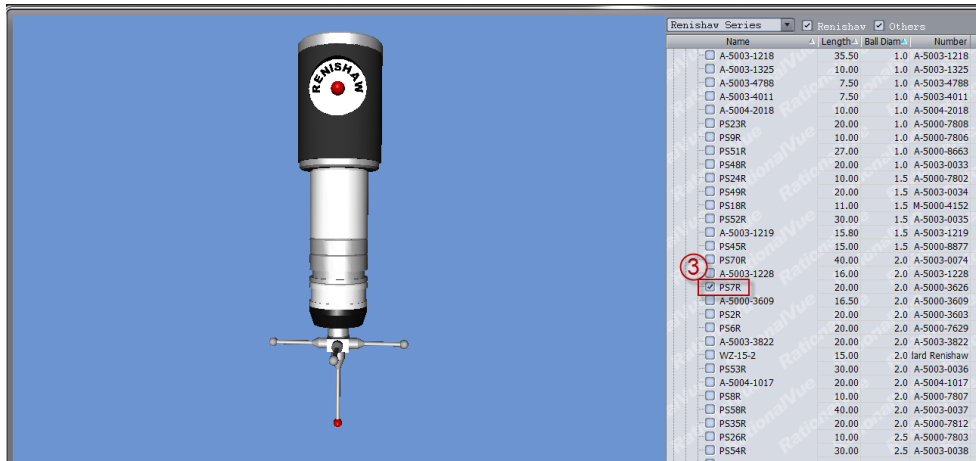
Select in sequence in "Build Sensor" area, PH6, TP20, the probe with diameter of 2mm and length of 20mm as sample below:

Select PH6 seat

Select TP20 model



Select the probe with diameter of 2mm and length of 20mm



Add probe

Change the tag name

Add probe

1

Build Sensor

Sensor Label

ROOTSN2

Calibration Form Error tolerance

0.010000

Sensor mount

Shaft Direction

-Z Dir

Orientation

-Y Dir

Shape Type

None

Update Sensor Mount

Offset:

Dx

0.0000

Dy

0.0000

Dz

0.0000

2

Add Sensor

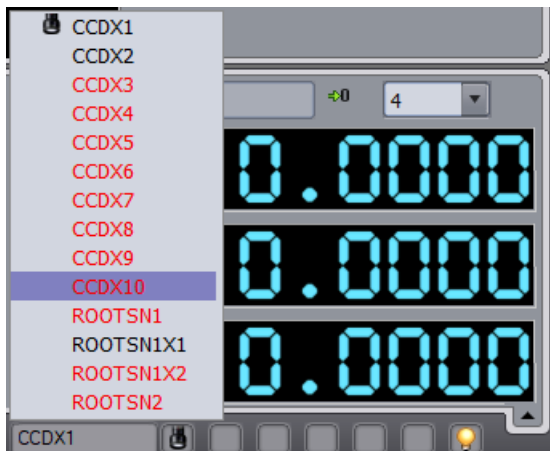
4. Sensor Calibration

The sensor calibration is calibrated from left to right in sequence, XY scale calibrate and CCD auto calibrate only need CX1 to do calibrate.



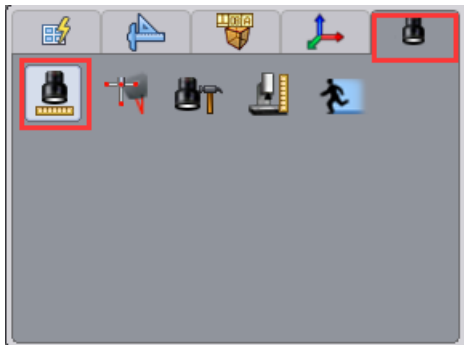
4.1 XY scale calibrate

Select the probe with maximum magnification to find the clearest focus plane.

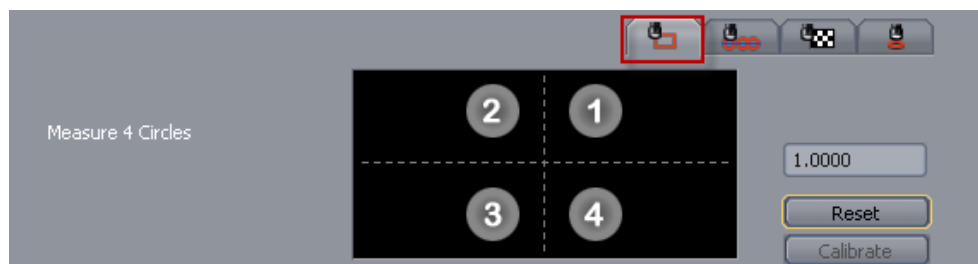


Switch to CX1

Select “Sensor”, Select “CCD Calibrate”

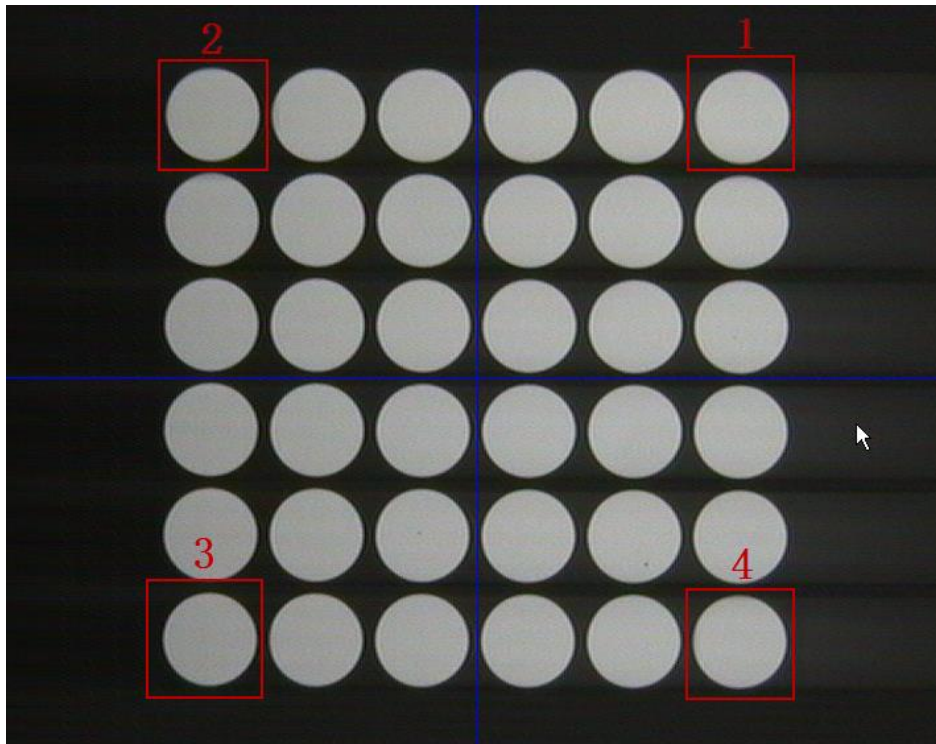


Select XY Scale Calibrate panel

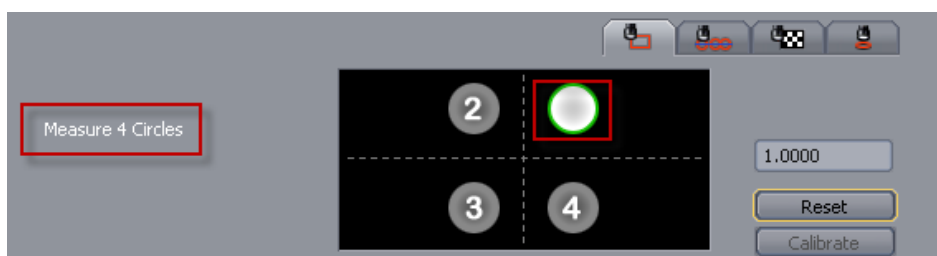


Select one group of array on calibrate glasses, measuring 4 circles in sequence according to the graphic. See as below

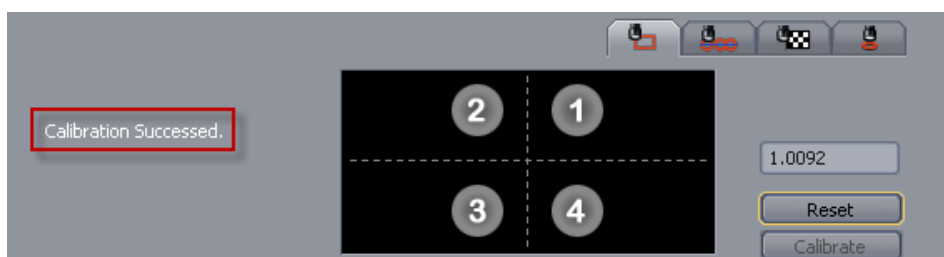
Note: Measuring isometric 4 rounds, and round regardless of the magnitude, please do not move the machine during measuring



The corresponding circle comes into measure condition during measuring.

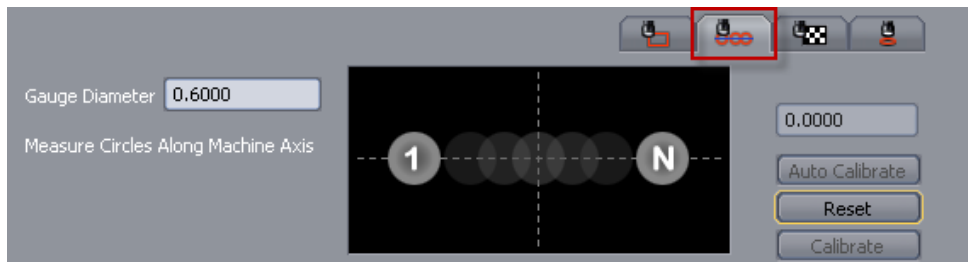


Click “Calibrate” to complete XY scale calibrate.



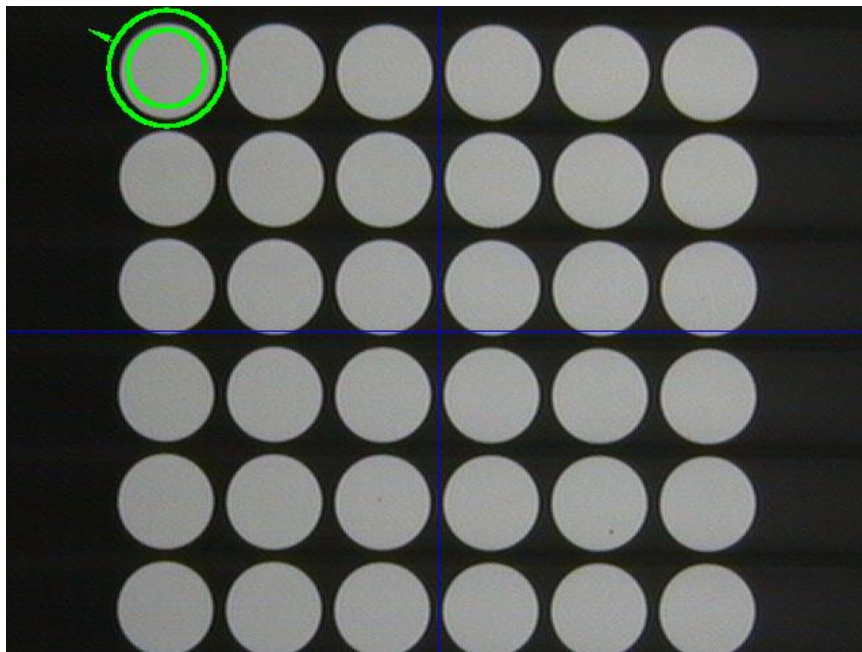
4.2 CCD Auto Calibrate

Select “CCD Auto Calibrate” panel

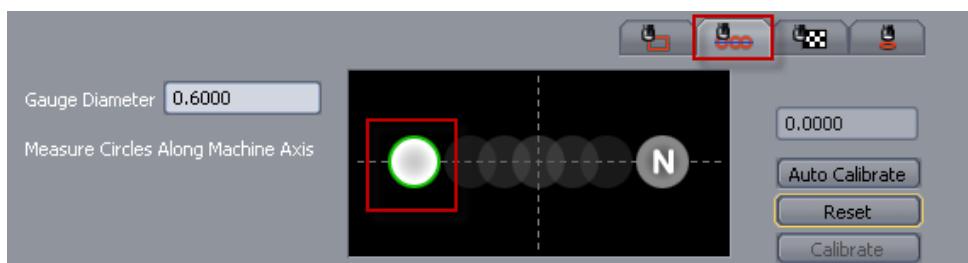


Select a circle with diameter of 0.6mm, Use of automatic identification tools or circle measurement tool

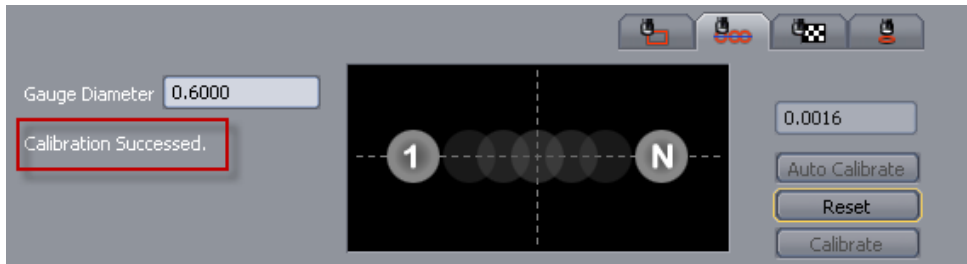
NOTE: The default is 0.6mm, also could select other diameters, but need to change the gauge diameter and then calibrate.



The first measured circle on calibrate panel becomes to bright at this time.



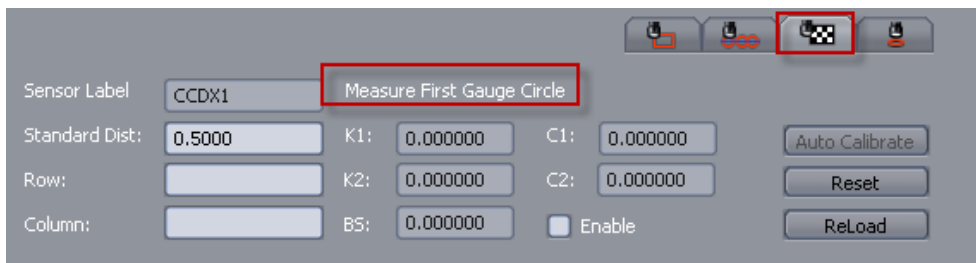
Select “Auto Calibrate” , the software will complete calibration automatically.



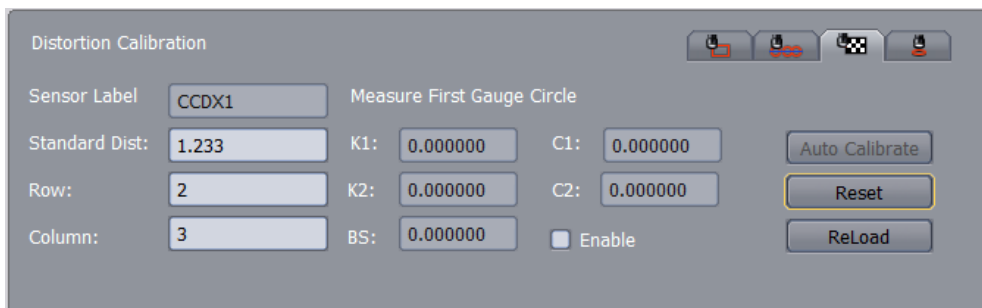
4.3 Distortion Calibration

If customers use a large field of view wide-angle zoom lens, you need to calibrate this, if not you can skip.

Select the lens distortion calibration panel



Once the parameters are set, according to the figure suggests that the center of the image area measuring first round.

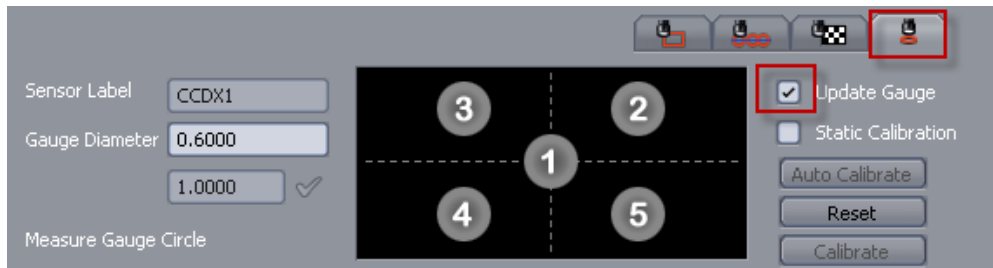


Press the figure prompted to measure the first round of a circle to the right. Click “Auto Calibrate”, complete calibrate.



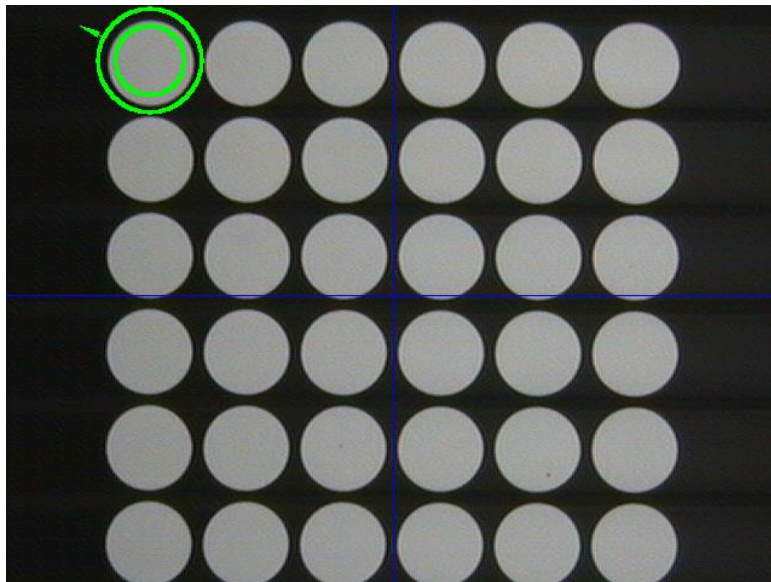
4.4 CCD Calibration and Concentricity Calibration

Select “CCD Calibrate” panel.

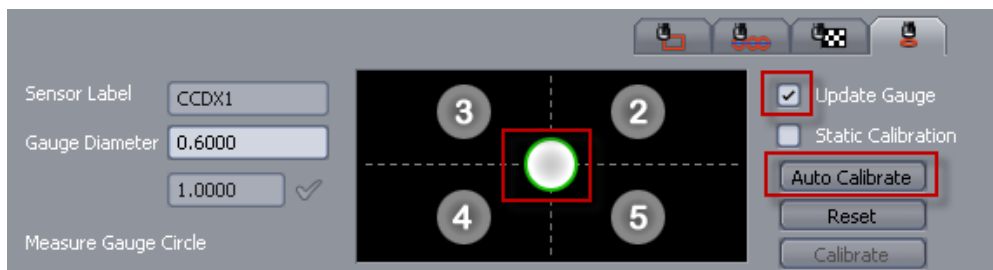


Select a circle with diameter of 0.6mm (also can select others, but need to change the gauge diameter), select circle tool to measure.

(Note: when calibrate the first lens that need to select “Update Gauge”, do not need to select for afterwards magnification. For CNC lens, next version will change to auto calibrate.)



At this time, the first measured circle becomes bright.



Mouse click “Auto Calibrate”, the software will complete CCD Calibrate automatically.

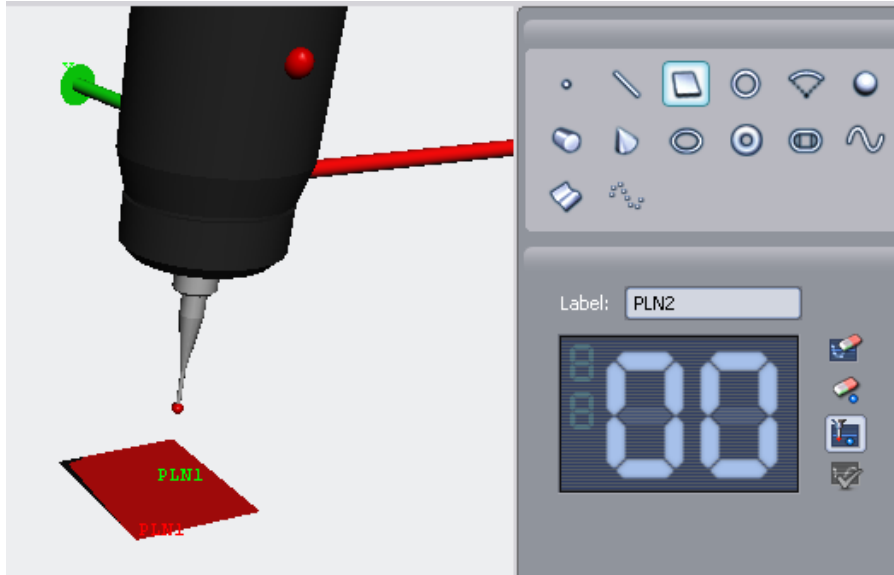
RationalVue Software can be used normally after active other magnification and complete calibration one by one.

4.5 Composite Calibration

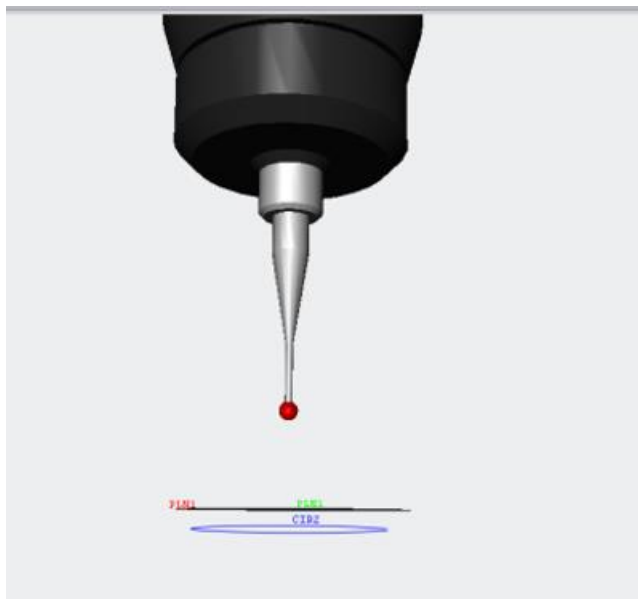
The purpose of composite calibration is calibrated the diameter of touch probe , offset of probe and video sensor.

Use video sensor to measure Cir1 on ring gauge.

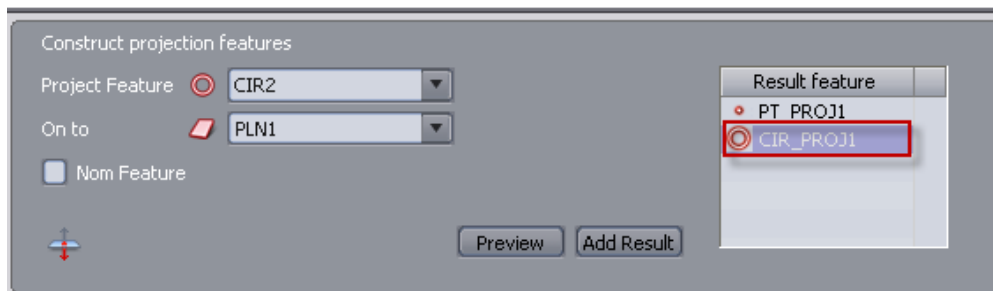
Switch the touch probe to measure Pln1 on ring gauge.



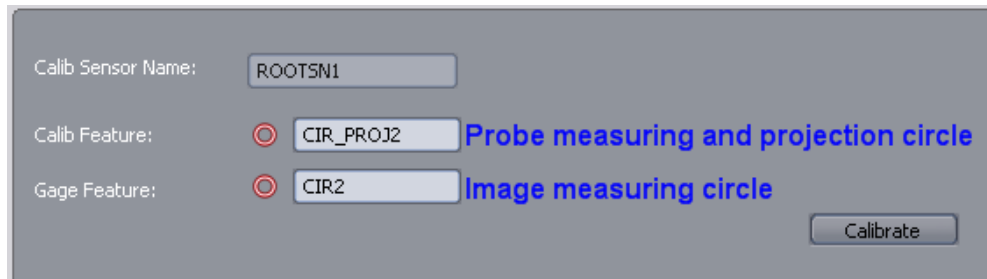
Use touch probe to measure Cir2 on ring gauge.



Project Cir2 to the Pln1



Composite Calibration



5. Feature Measuring

5.1 Image Measure

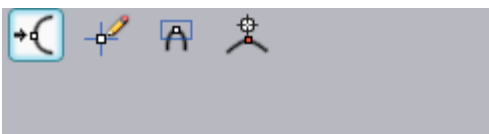
Point

Automatic measure point

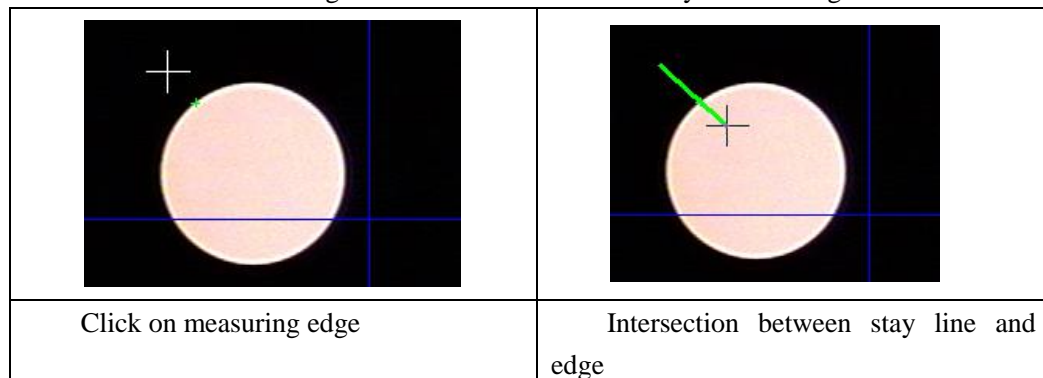
Select "Point"



Select "Nearest Point Tool"



Mouse click to measure the edge and intersection between stay line and edge.



Right click to complete measurement.

Manual measure point

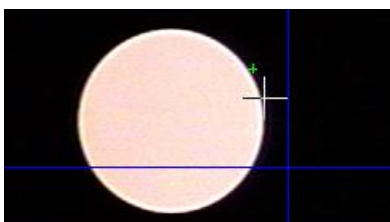
Select “Point”



Select “Crosshair Tool”



Start to measure by click



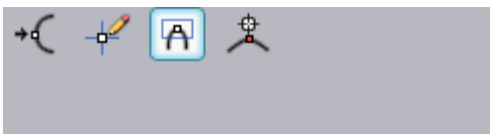
Right click to complete measurement.

Cusp

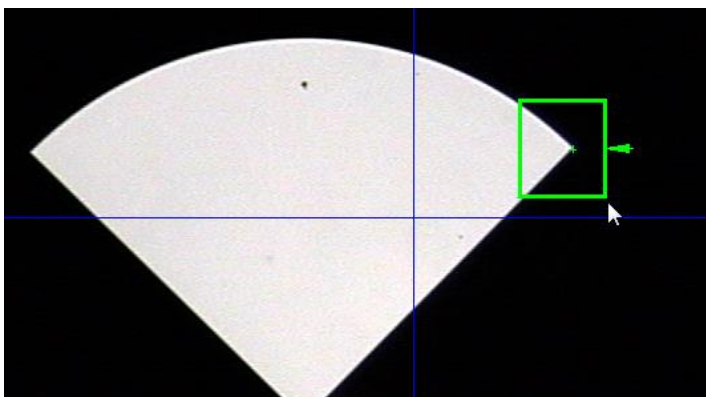
Select “Point”



Select “Cusp Tool”

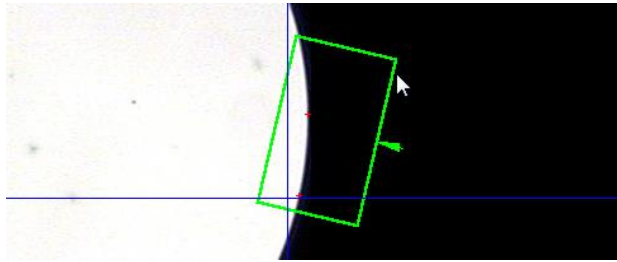


Select measuring position on image and notice the measuring direction. The direction of following sample is from right to left.



Right click to complete measurement.

Hold on the Shift key to select, the software will get points in the direction of the nearest part of the coordinate system it can be used to calculate the maximum or minimum point, but also to ensure the repeatability.



Focus measure point

Select “Point”



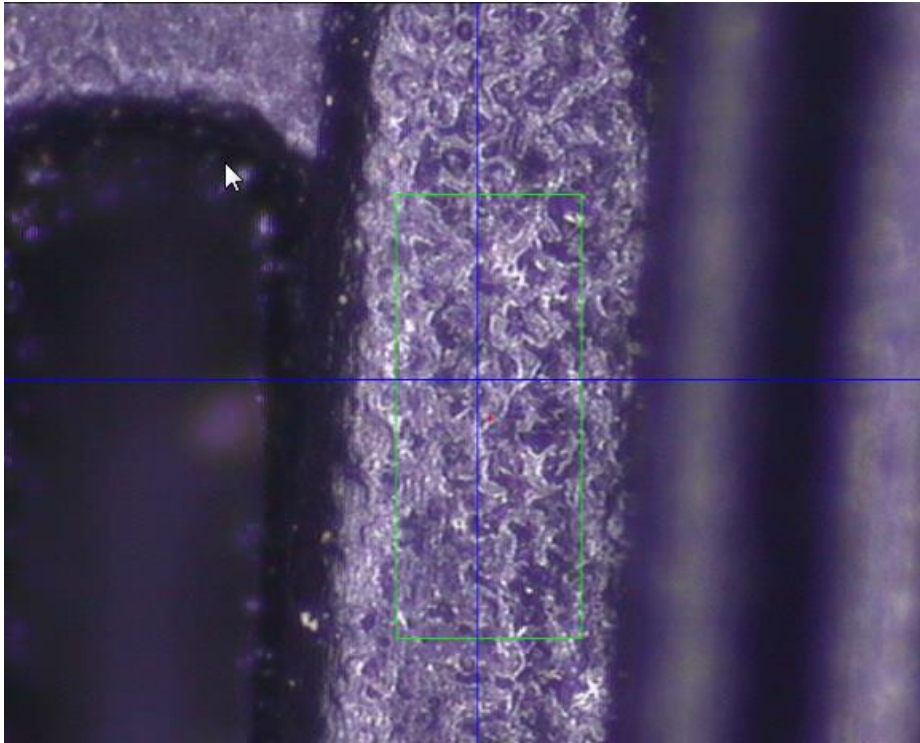
Select “Focus Measure Tool”



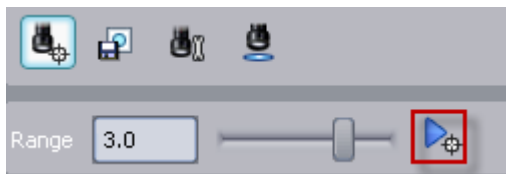
Select “Auto Focus”



Adjust focus range with left button



Start to focus by click



Right click to complete measurement.

Line

Direct Measurement

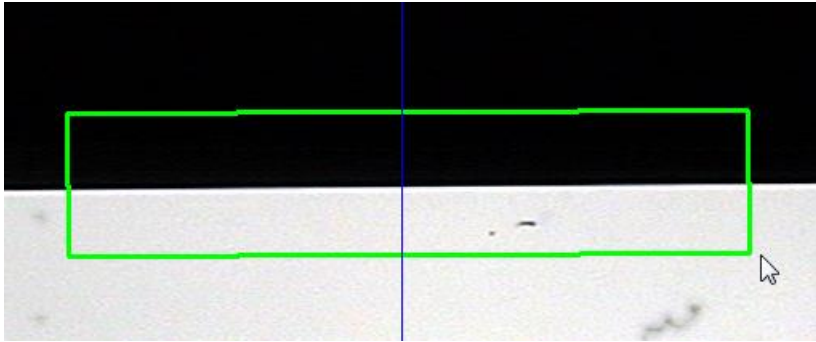
Select "Line"



Select "Line Tool"



Click mouse left start to measure.



Right click to complete measurement.

Add Direction Control measurement

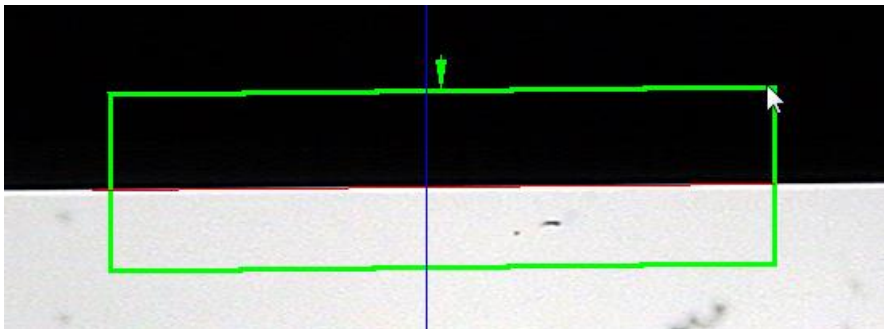
Select "Line"



Select "Line Tool"



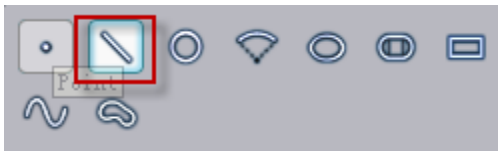
Click mouse left start to measure and press "Shift" which can use direction judgment.



Right click to complete measurement.

Subsection measurement

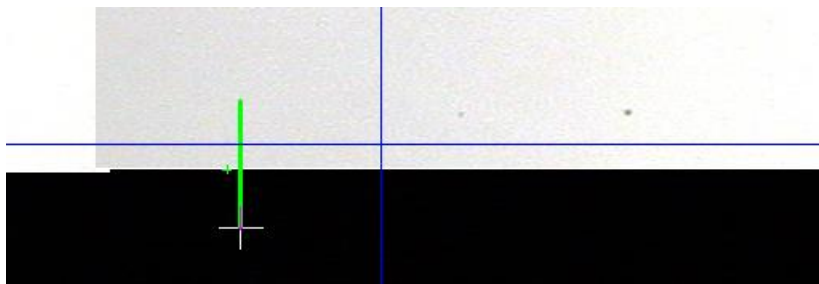
Select "Line"



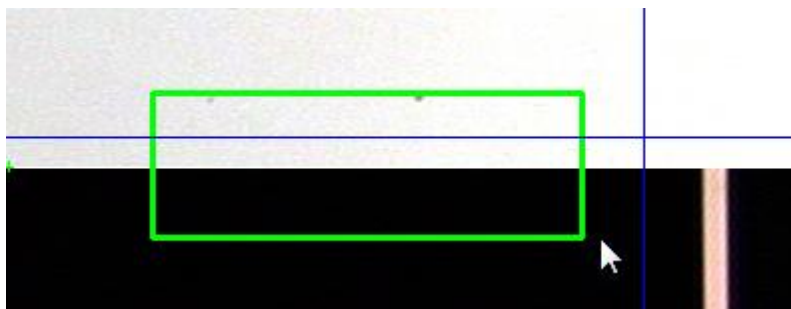
Select measuring tools that need to use, which could be edge point, line, curve scan, etc.

Using edge point and line tool as sample below:

- 1) Use edge point start to measure.



2) Move machine and use line tool to measure

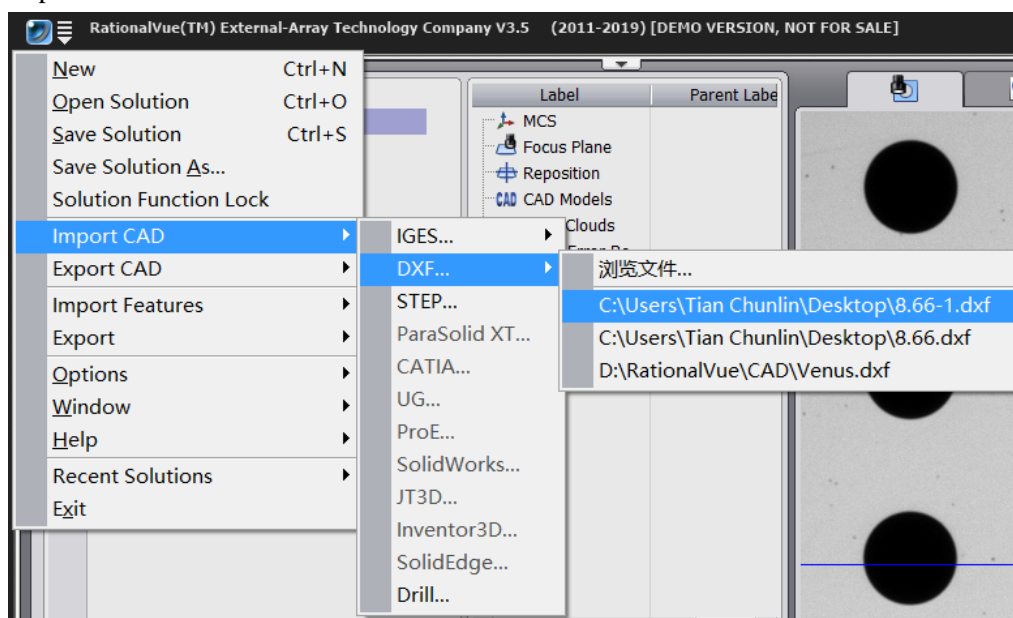


Right click to complete measurement

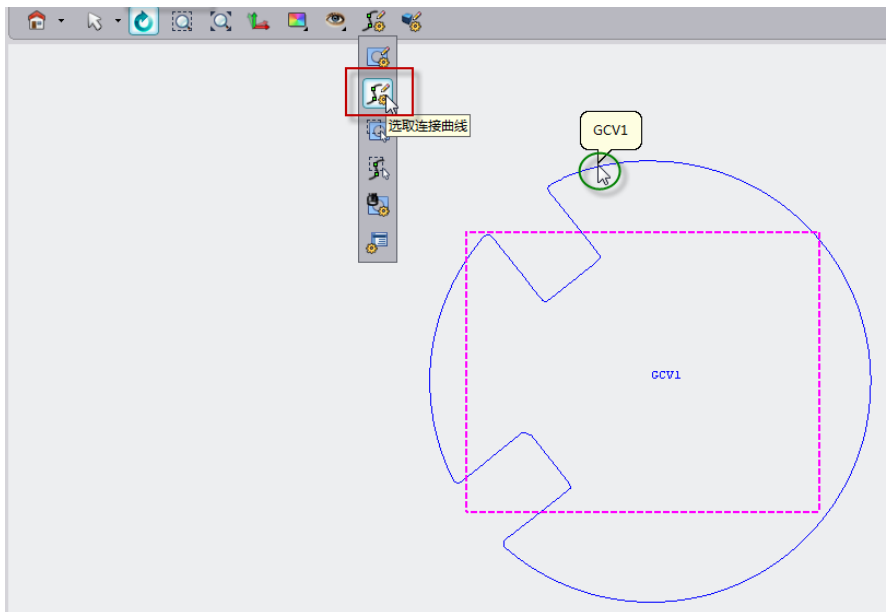
Note: measurement method for circles is similar with line which could select edge point, arc, circle and curve measure tool.

Curve profile measuring

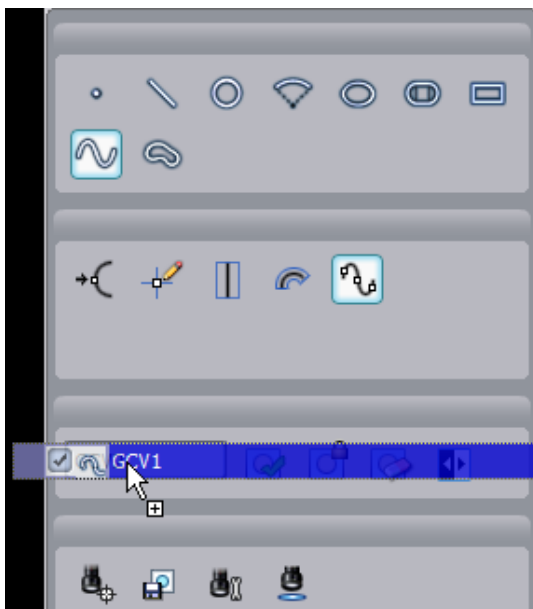
Import nominal curve



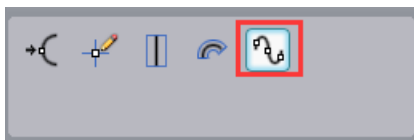
Select nominal curve



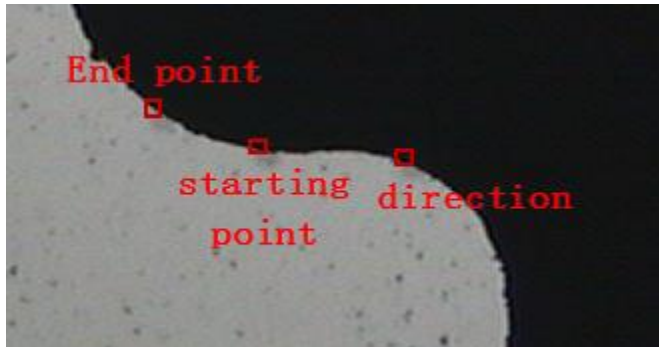
Drag the nominal curve drop onto measuring label



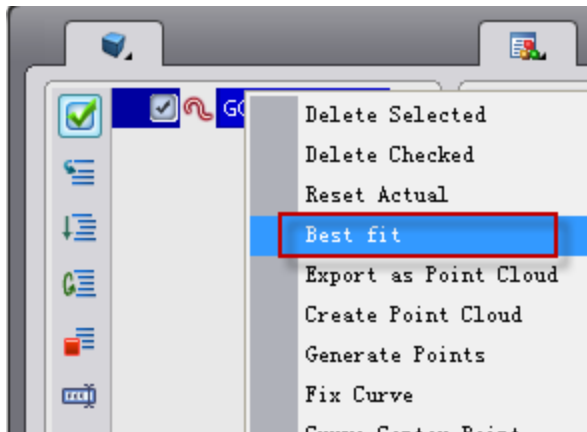
Select "Curve Tool"



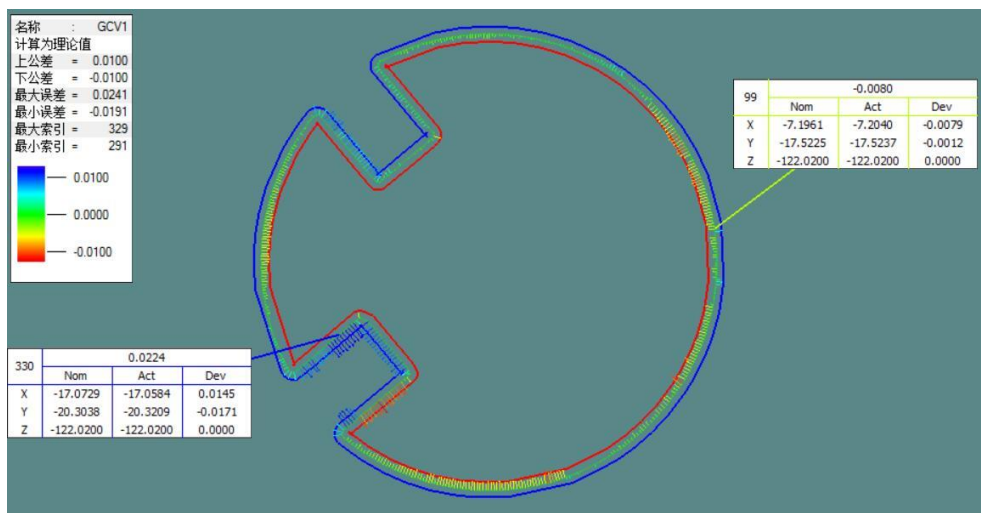
Complete curve measurement by mouse click start point, direction point and end point.



Right click Curve and select “Best fit” in program area.



Drag and drop onto “FormError” window to complete curve profile evaluation.



5.2 Probe Measure

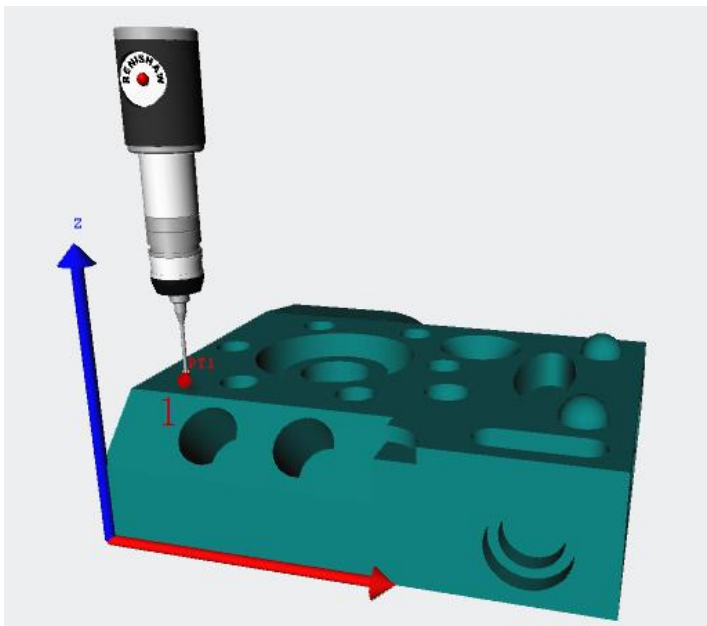
Active touch probe, and measurement of point, line, circle, plane, cylinder, cone, sphere, curve, surface can be completed by joystick.

Point

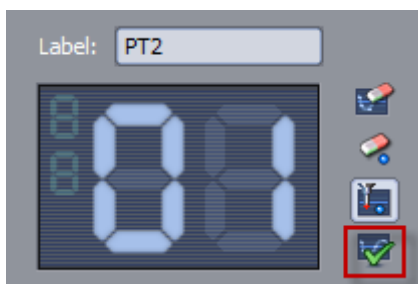
Select "Point"



Move machine to measure one point



Click "Accept" to complete point measurement

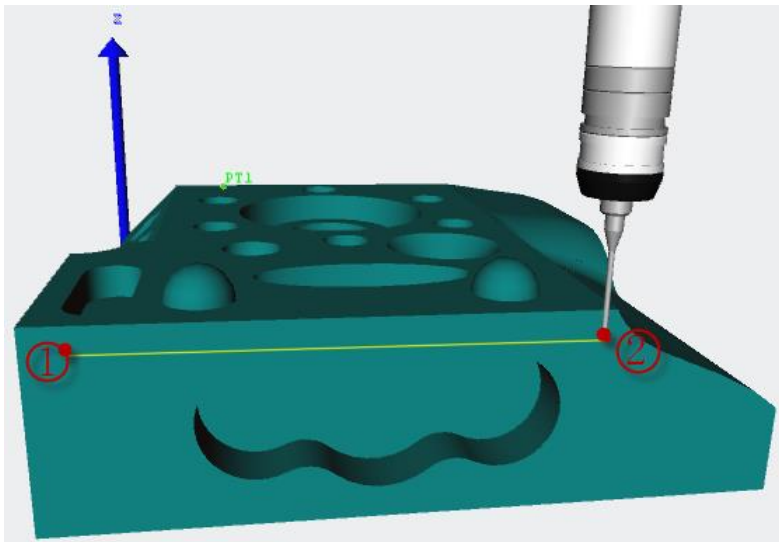


Line

Select “Line”



Move machine to measure two points

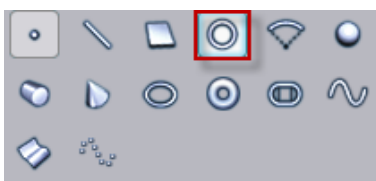


Click “Accept” to complete line measurement

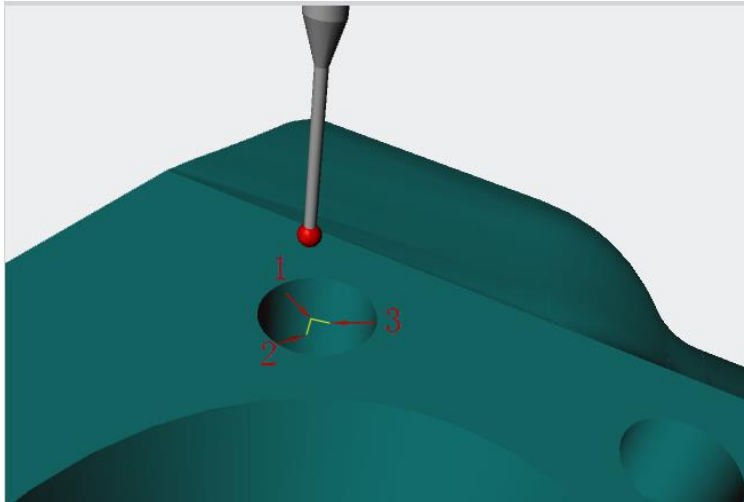


Circle

Select “Circle”



Move machine to measure circle



Click “Accept” to complete circle measurement

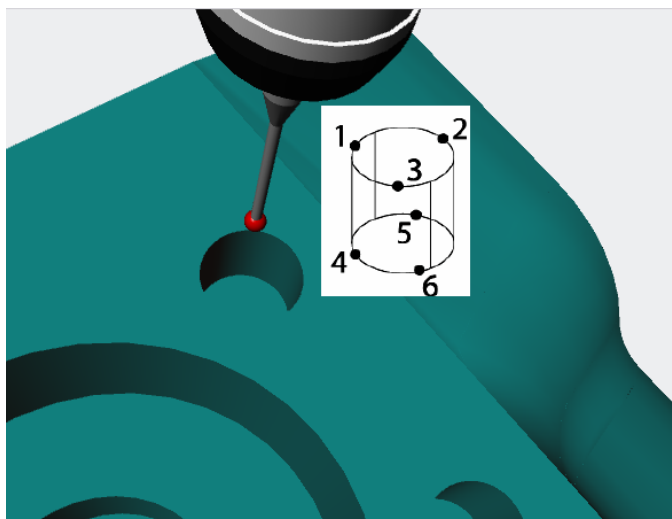


Cylinder

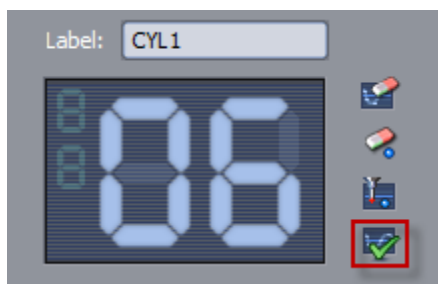
Select “Cylinder”



Move machine to measure a cylinder



Click “Accept” to complete cylinder measurement

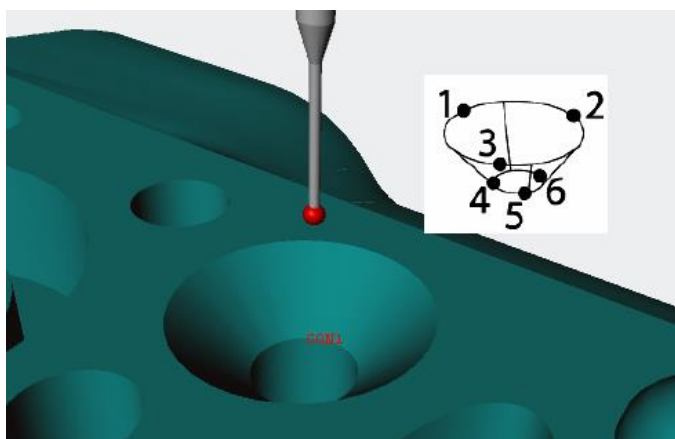


Cone

Select “Cone”



Move machine to measure a cone



Click “Accept” to complete cone measurement



6. Coordinate System

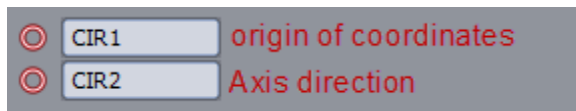
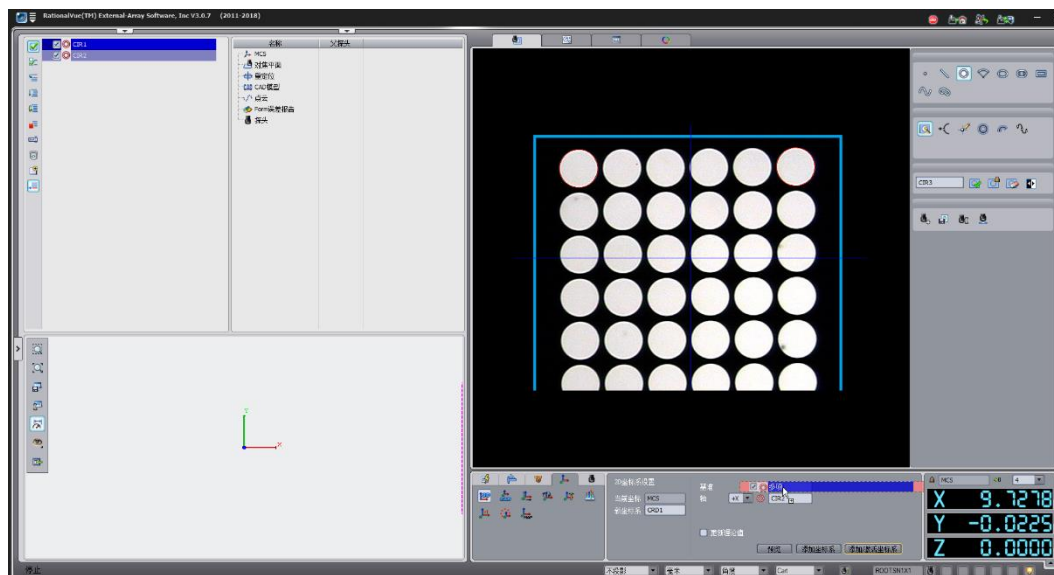
6.1 Coordinate 2D Setup

Coordinate setup supports circle & circle, circle & line and line & line

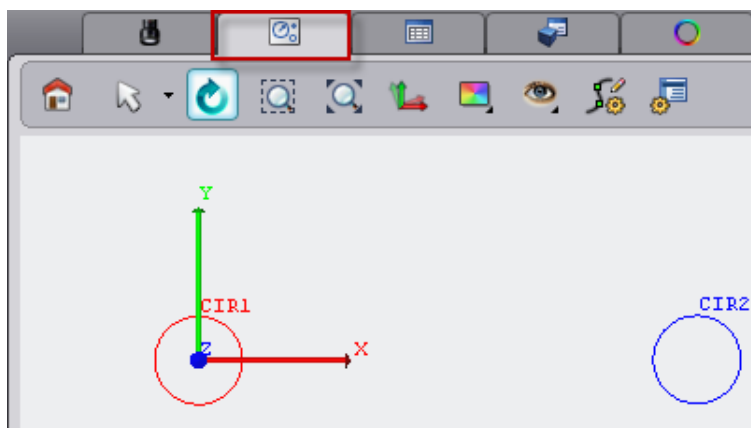
Circle & circle

Measure two circles which have created coordinate.

Drag two circles drop onto coordinate 2D Setup area.

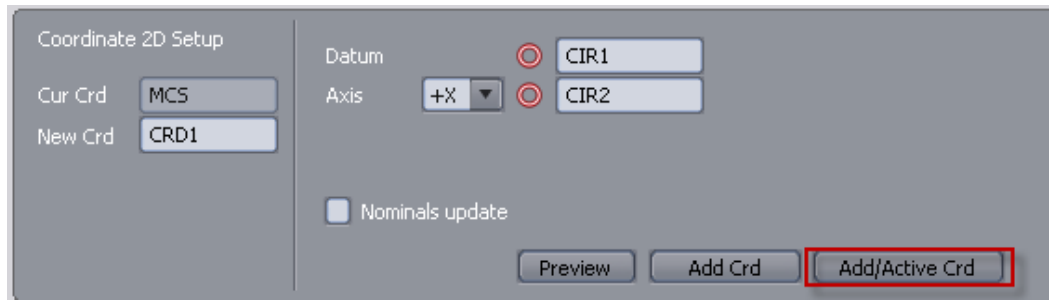


Preview the coordinate.



The user can preview establishment details of coordinate in CAD window.

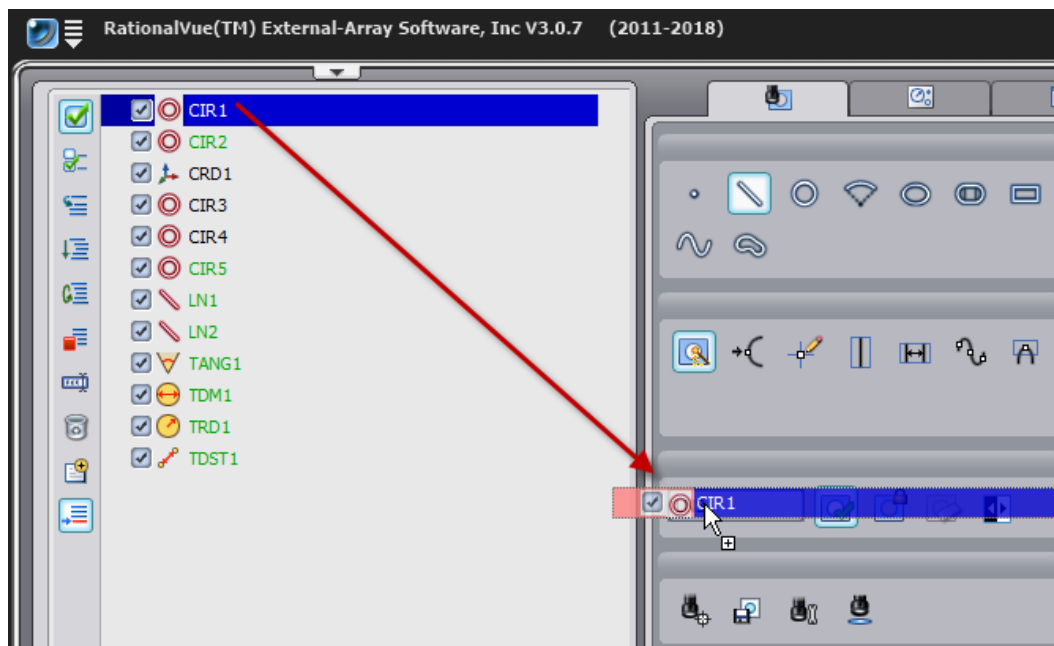
Add/Active coordinate to complete coordinate setup.



Measuring other features

The operations of run program

When the work piece was moving, user needs to manual setup coordinate again which drag circles drop onto measuring label.



Then measure this circle manually.

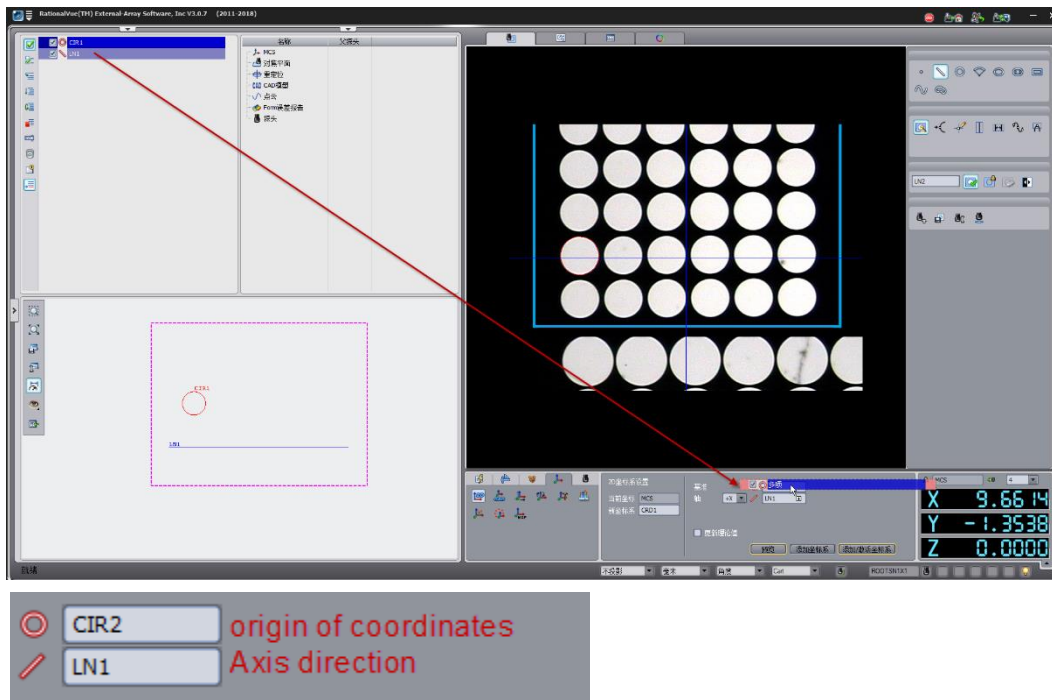
The operations of the second circle were same as above.

Start to run program from coordinate that can be measured.

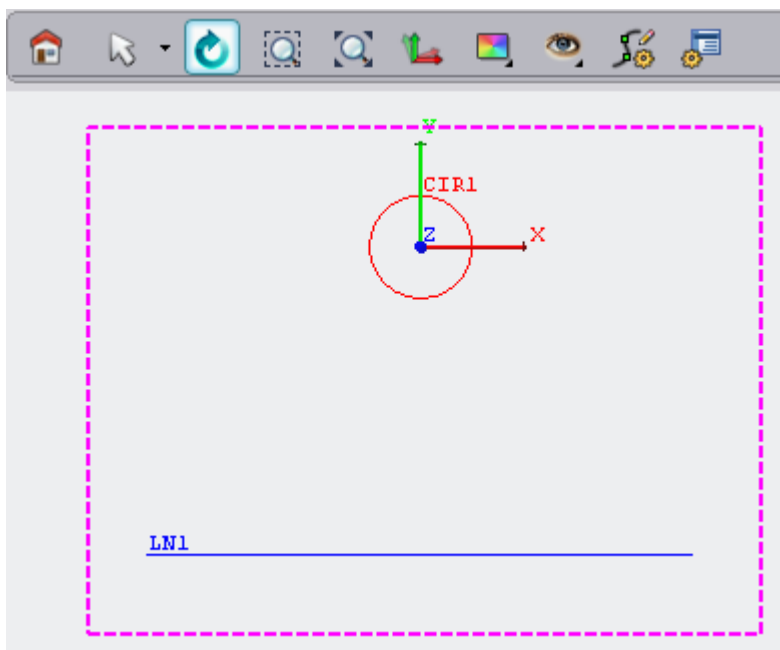
Circle & Line

Measuring circle and line which has created coordinate

Drag circle and line drop onto coordinate 2D Setup area

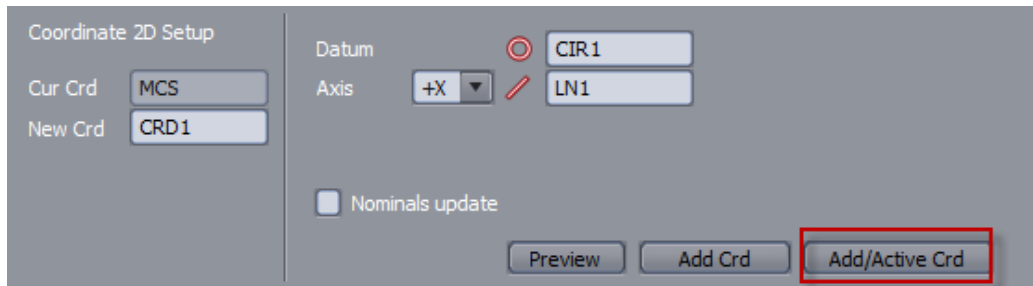


Preview the coordinate



The user can preview establishment details of coordinate in CAD window

Add/Active coordinate to complete coordinate setup

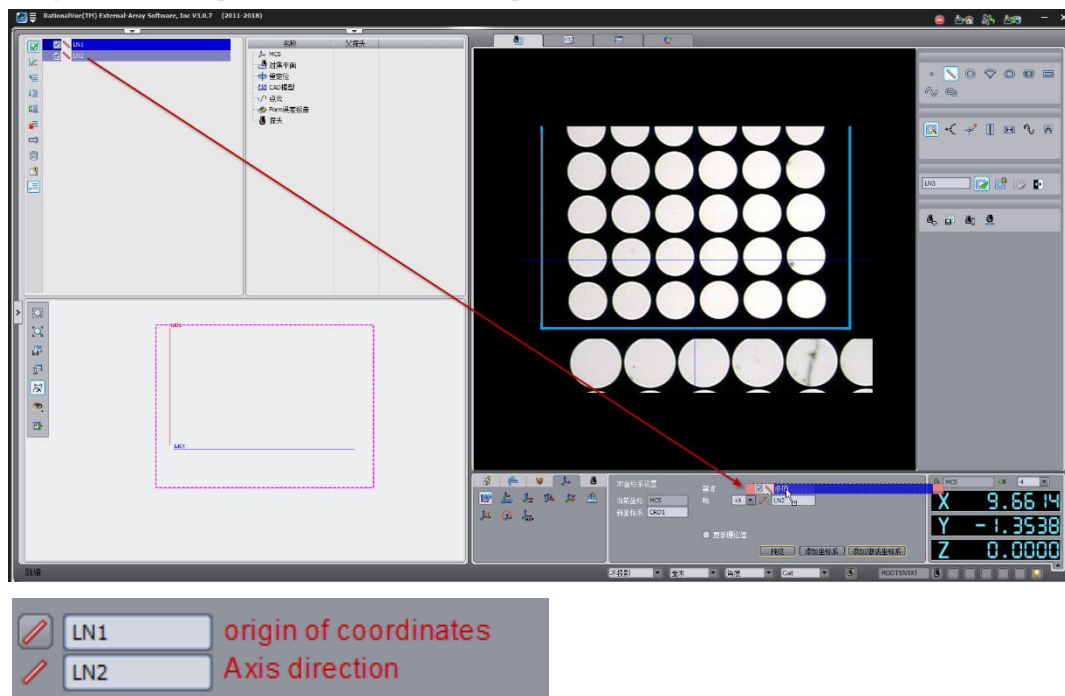


Note: Please notice the direction of line during run program measuring. When manual setup coordinate afterwards to measure line which need according to previously coordinate setup method to complete measurement.

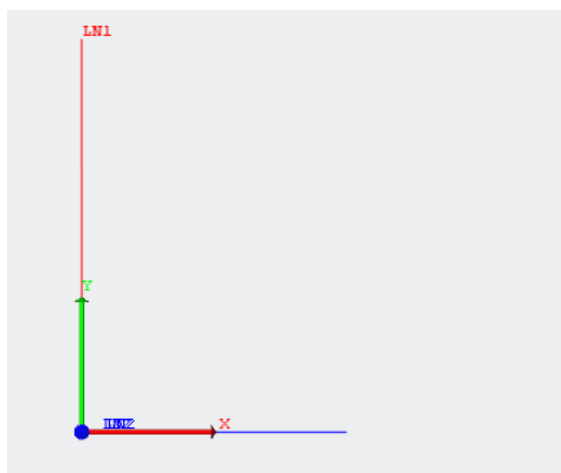
Line & line

Measuring two lines which have created coordinate.

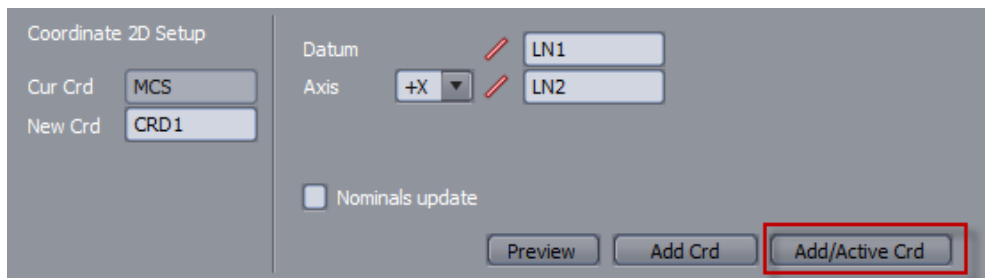
Drag two lines drop onto coordinate 2D Setup area.



Preview the coordinate

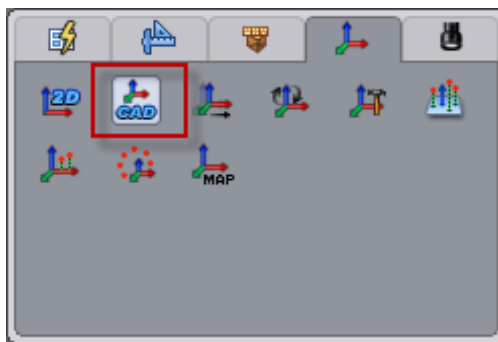


The user can preview establishment details of coordinate in CAD window.
Add/Active coordinate to complete coordinate setup.



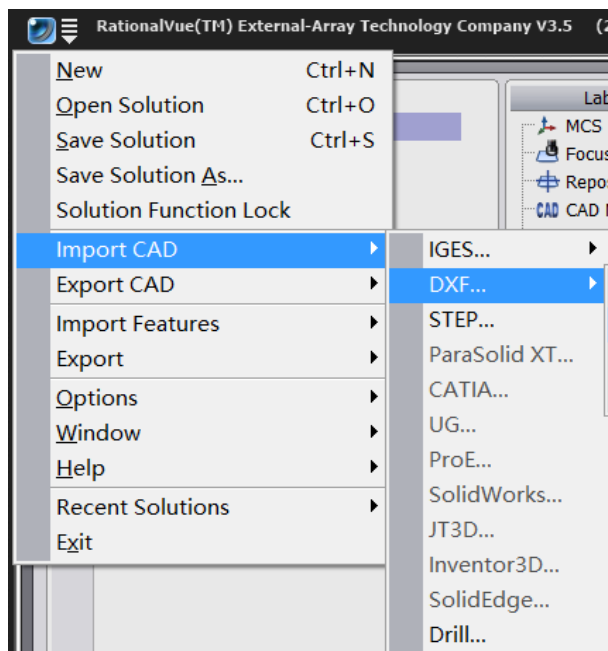
CAD Alignment

CAD alignment includes circle & circle alignment, circle & line alignment, line & line alignment.

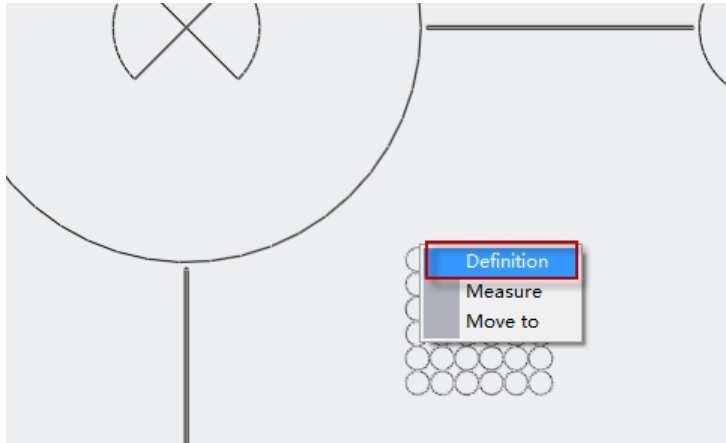


Circle & circle CAD alignment as sample below (Circle & line and line & line are similar, what need to note is the direction of line.)

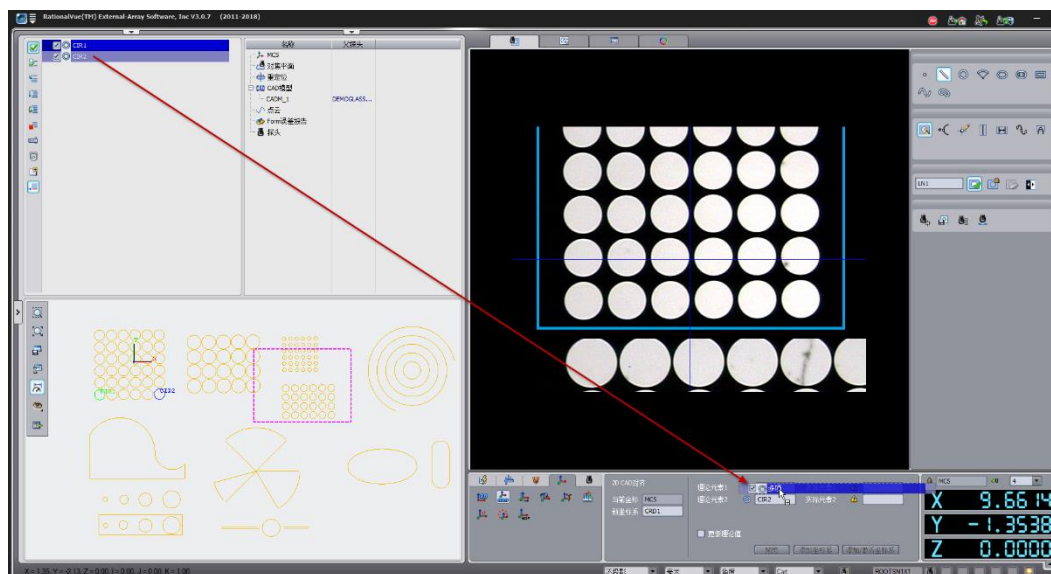
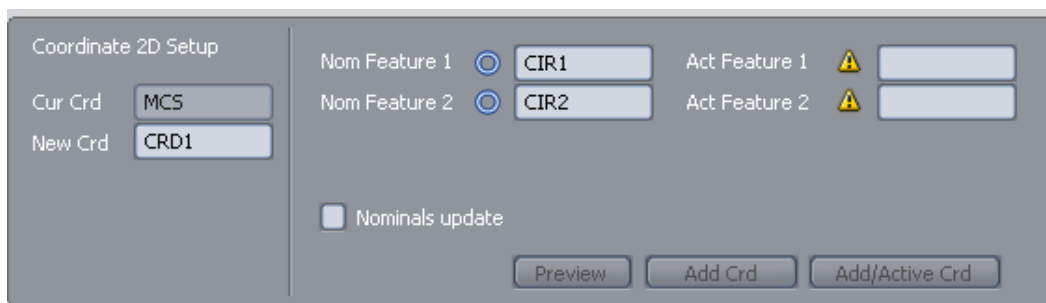
Import CAD



Select nominal circle on CAD, then select define on CAD to define a feature with left button.



Drag and drop 2 defined circles onto CAD alignment area.



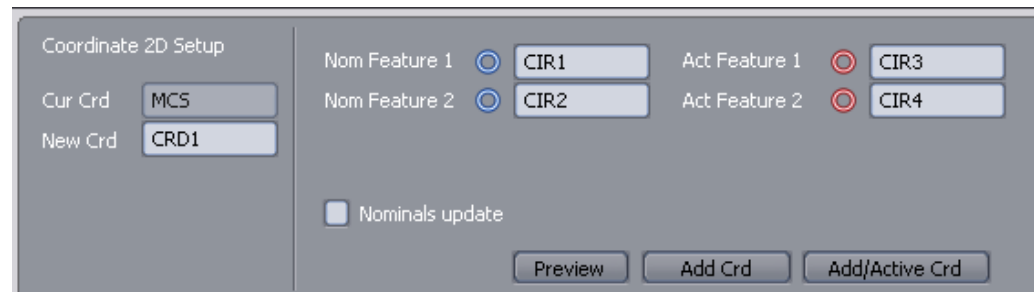
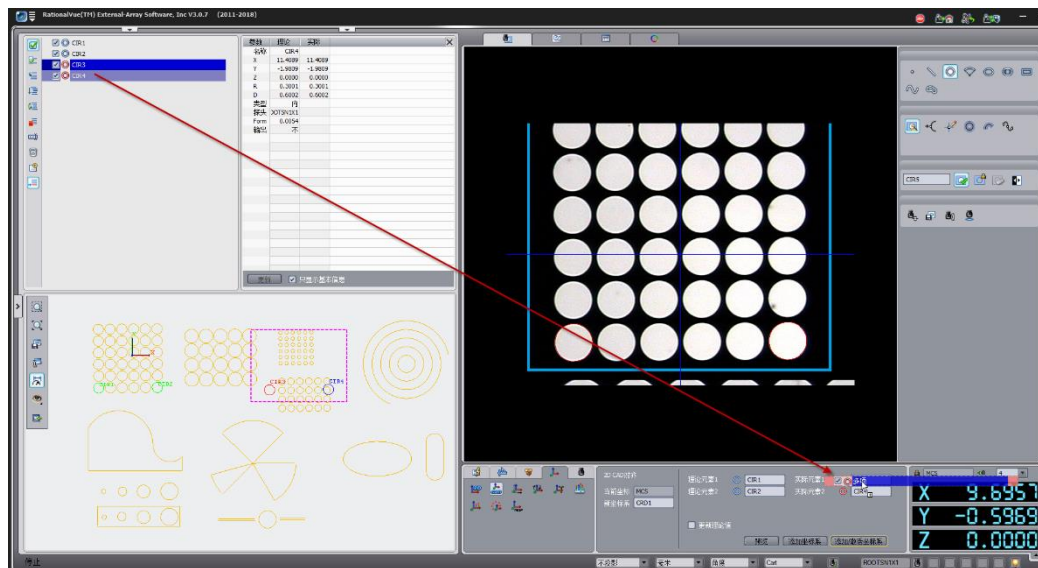
Measuring two relevant circles in image measurement zone.

Note that circle label can not accordance with nominal circle during measuring. Otherwise coordinate will have some errors.



CIR1 and CIR2 were defined when selecting nominal circle. It shouldn't be CIR1 and CIR2 here in actual measuring.

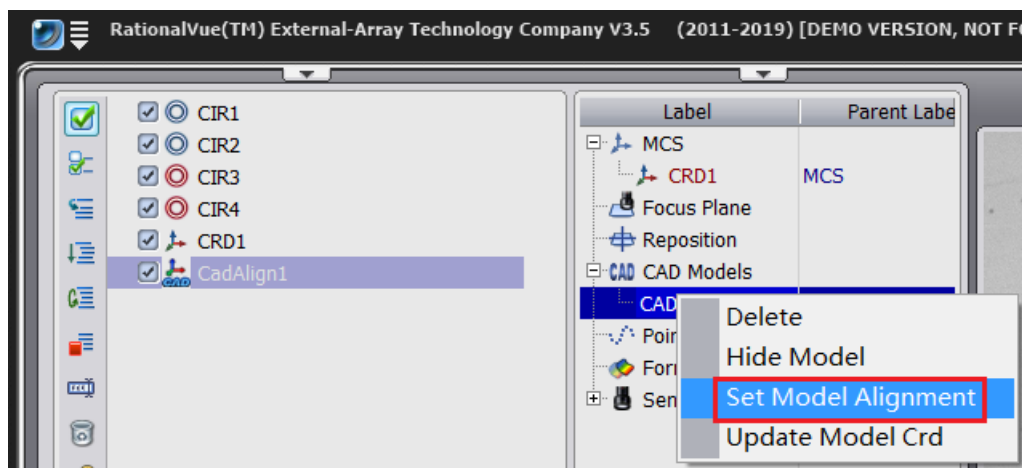
Drag and drop actual feature onto CAD Alignment zone.



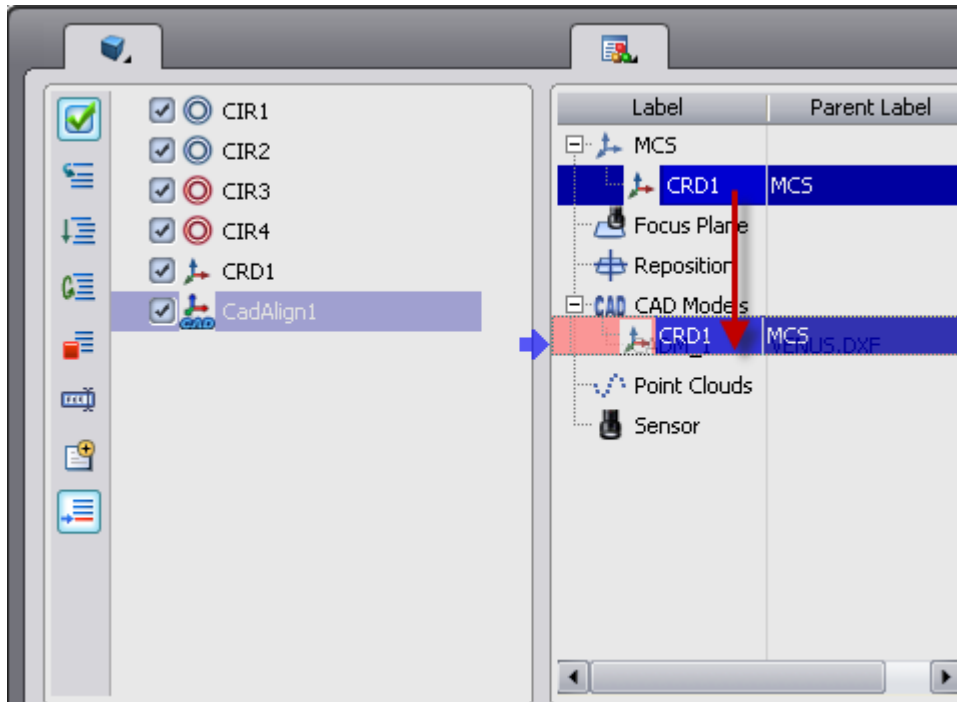
Add/Active coordinate



CAD Alignment



The figure is a model aligned with the right set, it also coordinates can be dropped onto CAD label name, complete the CAD alignment.



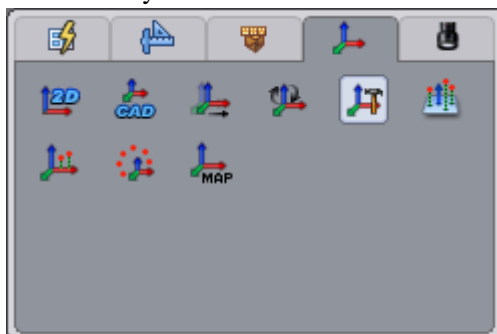
6.2 Coordinate 3D Setup

RationalVue 3D coordinate is “Quick 3-2-1” coordinate setup which supports coordinate setup through by plane & plane & plane, plane & plane & line, plane & line & line, plane & line & point.

Note: line feature could be line, cylinder or cone.

Point feature could be circle, arc, sphere, slot, ellipse or point.

Select “Create Coordinate” in “Coordinate and Sensor” of Operation Toolbar, select establish the coordinate system.



The interface of Coordinate 3-2-1 Setup as below

Coordinate 3-2-1 Setup

Cur Crd: MCS
New Crd: CRD1

+Z Dir: [v]
+X Dir: [v]
X Origin feature: [•]

PLN1
LN3
PT1

Z Value: [0]
Y Value: [0]
X Value: [0]

☐ Nominals update

Preview Add Crd Add/Active Crd

Feature import of axis control window:

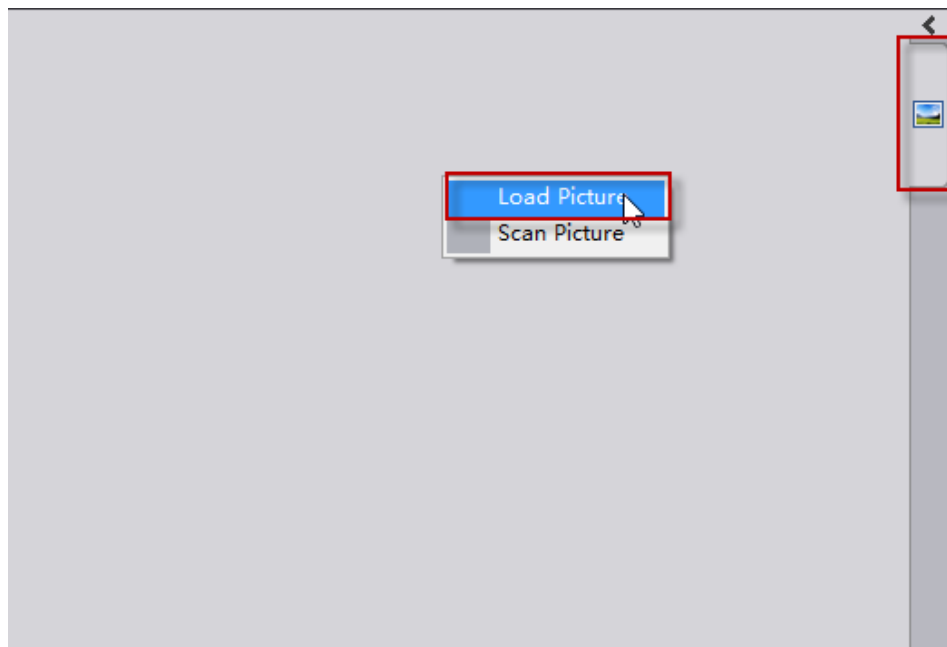
The feature in the first import window controls direction and position of primary axis which accepts drag and drop of feature that can be simplified as plane. The feature in the second import window controls direction and position of secondary axis which accepts drag and drop of feature that can be simplified as line. The feature in the third import window controls direction and position of third axis which accepts drag and drop of feature that can be simplified as point.

PLN1 Z Value
LN3 Y Value
PT1 X Value

6.3 Image Navigate

Take picture

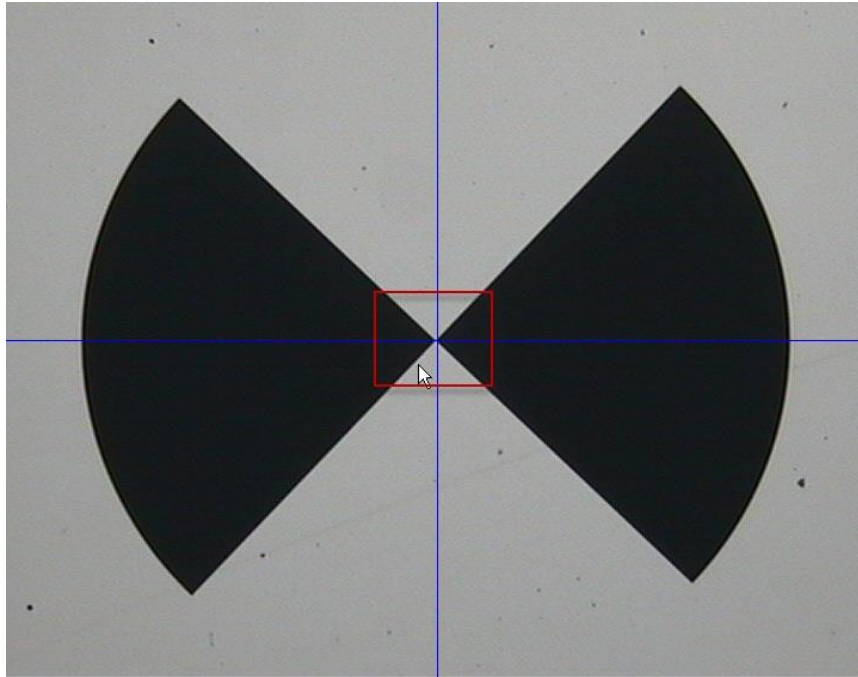
Load picture



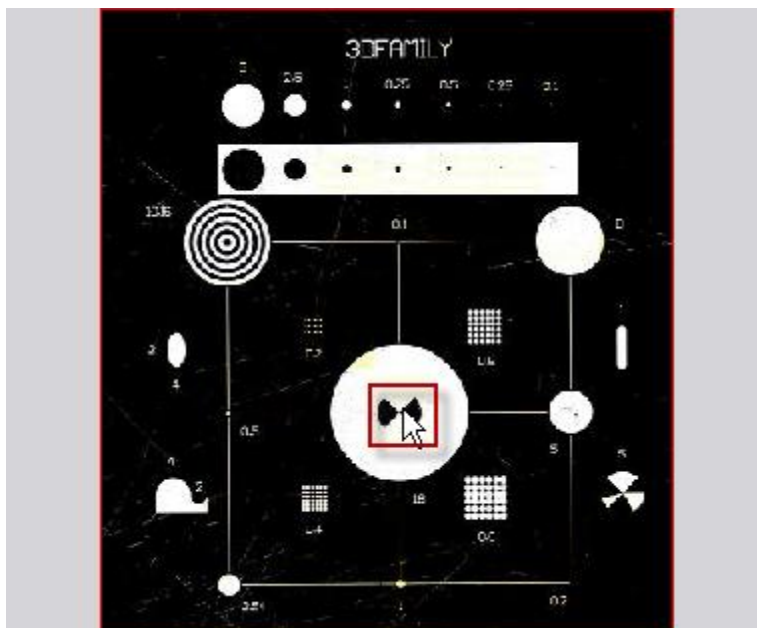
Select detect snapshot and then right click “Load Picture”.

Note: When the picture was just loading in, border of picture is red.

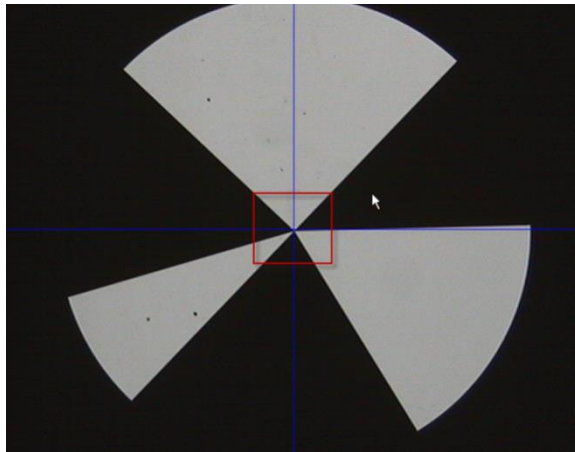
Get locate point that easy to find and move it to crosshair.



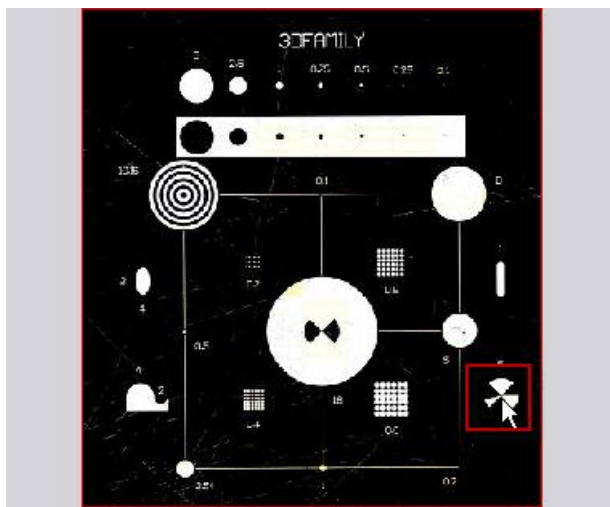
Click on the picture with right button



Find another position, same operation as above.



Click with middle button



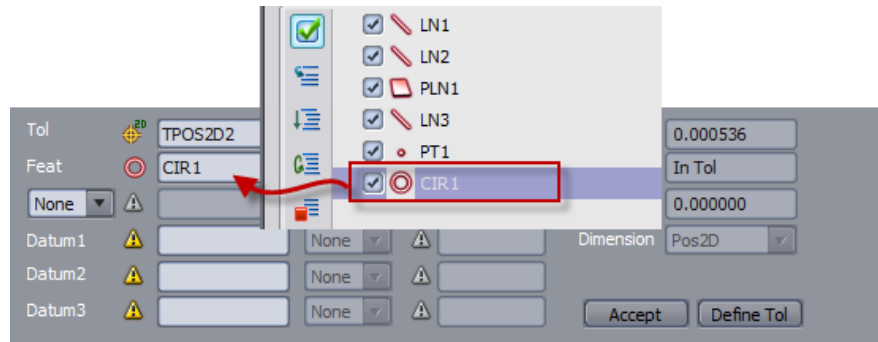
Complete picture location by above operations

Middle click on picture, the machine will move to corresponding position automatically.

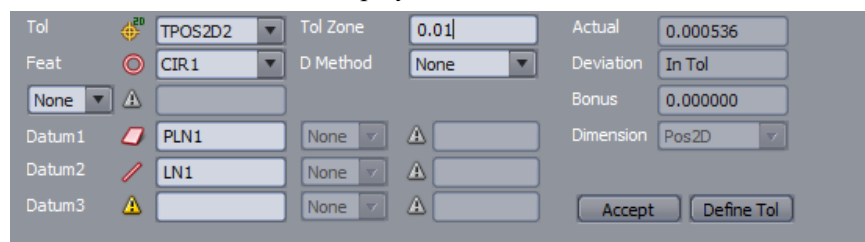
7. Tolerance Evaluation

7.1 Traditional Tolerance Evaluation

Drag and drop features from program data area onto “Feat” in tolerance window.



Setup relevant tolerance zone (or up and low tolerance), and drag & drop reference feature onto “reference feature” formula bar. Evaluate result was displayed in “Actual”. If result is not out of tolerance, “Deviation” will display “In Tol” (which means the result is within tolerance range). Otherwise, “Deviation” will display the actual value.

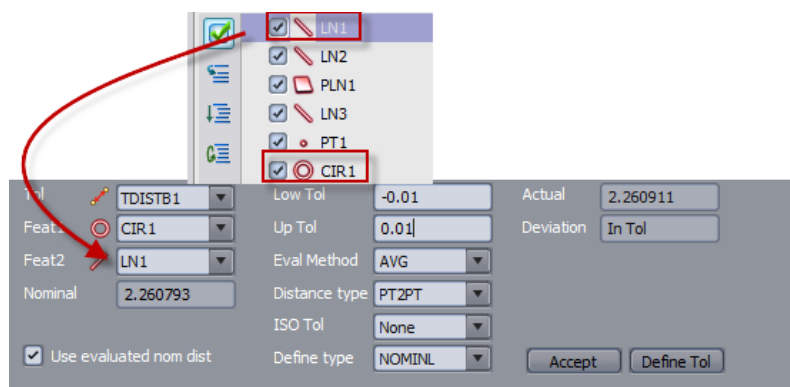


Click “Accept” to complete tolerance evaluation. The result will be saved in tolerance data area. Tolerance evaluation operation of distance and diameter as sample below:

Distance

Distance can evaluate distance of between any two features, such as circle & circle, circle & line, line & line, circle & plane, plane & plane, point & line, and point & plane etc.

Drag and drop circle and line from program data onto “Feat” in distance tolerance operation window.

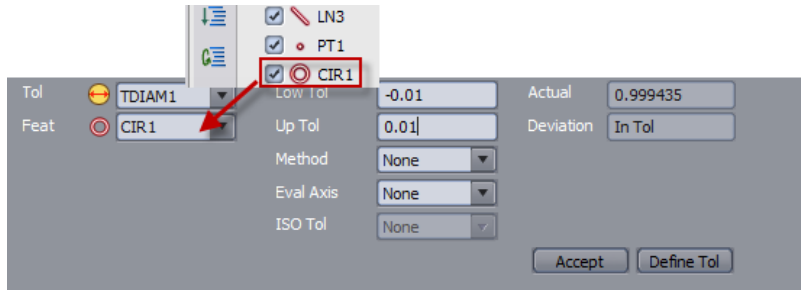


Change the up and low tolerance

Click “Accept” to complete distance evaluation

Diameter

Drag and drop circle diameter tolerance from program data onto “Feat” in distance tolerance operation window.



Change the up and low tolerance

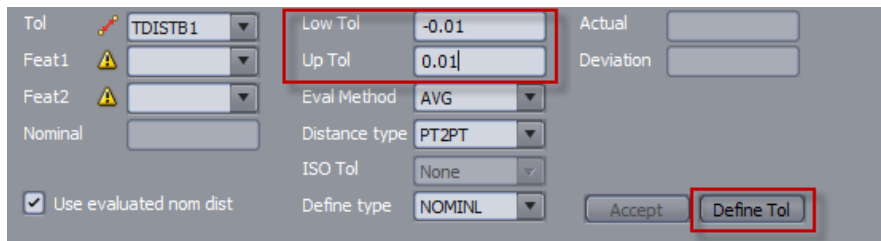
Click “Accept” to complete distance evaluation

7.2 Quick Tolerance Evaluation

Quick distance and diameter tolerance evaluation as sample below

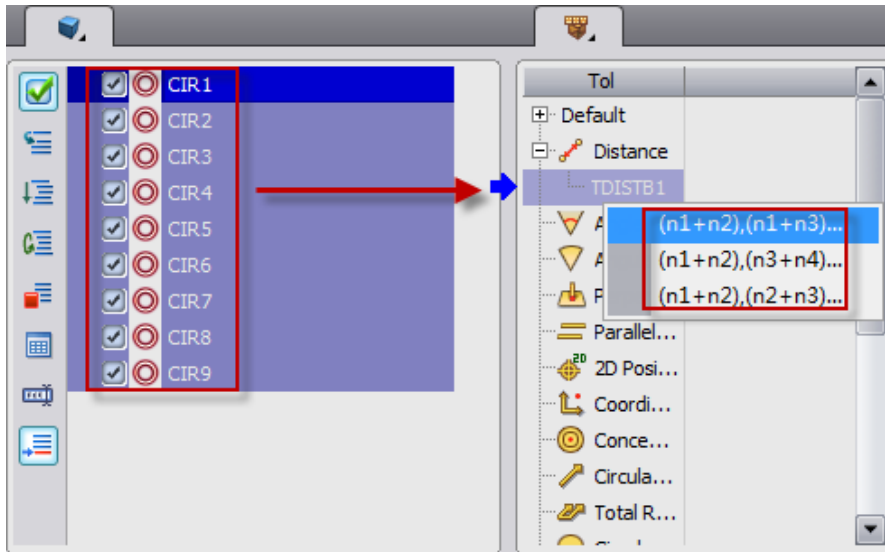
Distance

Define distance tolerance



Note: Feature window is empty

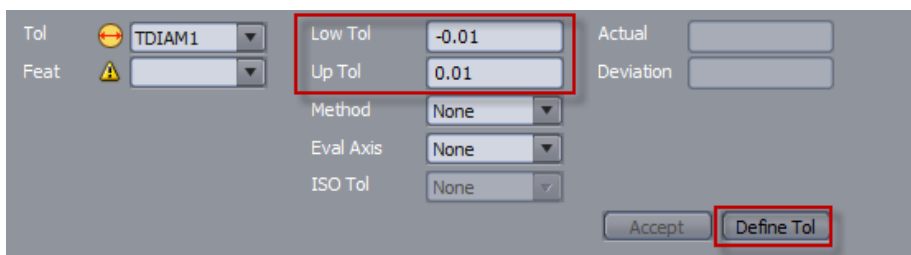
Drag the features which need to evaluate drop onto distance tolerance label



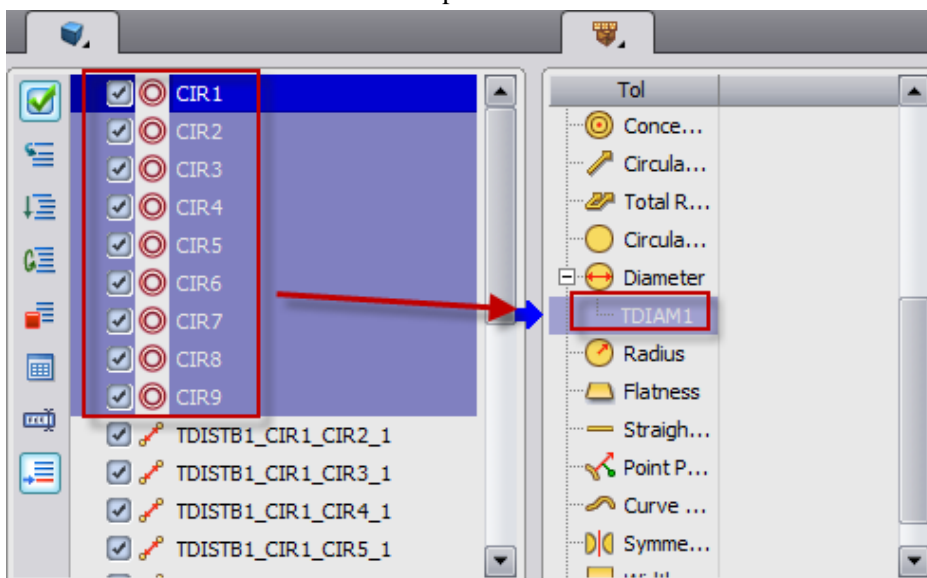
Select calculation way to complete distance tolerance evaluation quickly.

Diameter

Define diameter tolerance

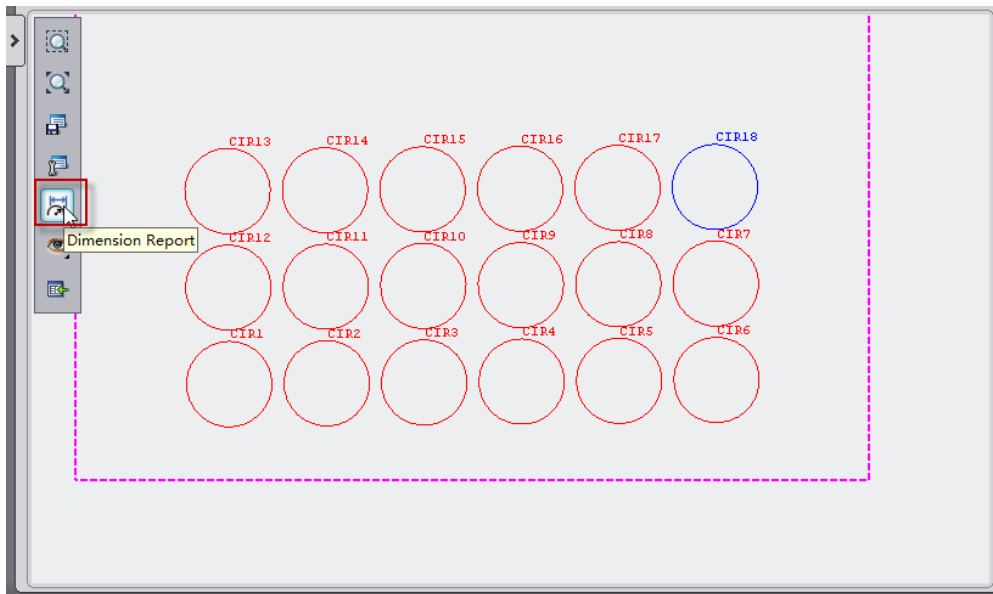


Drag the features which need to evaluate drop onto diameter tolerance label that batch evaluation of diameter tolerance can be completed.

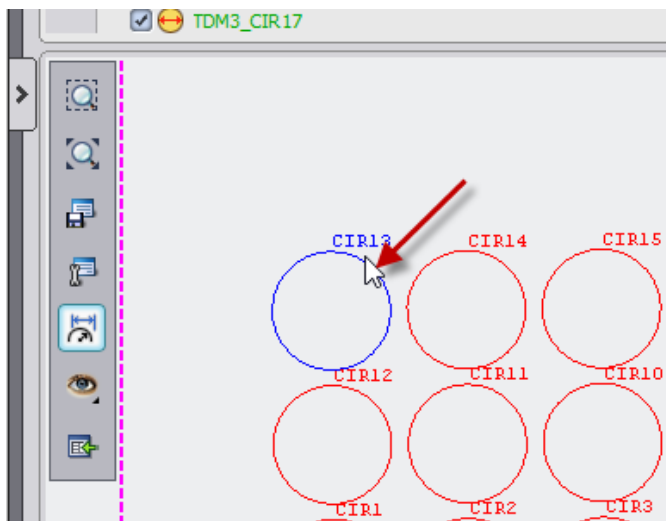


8. Graphic Label

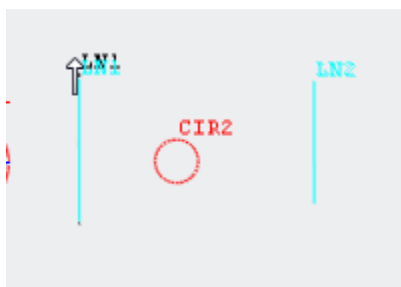
Select graphic output report window



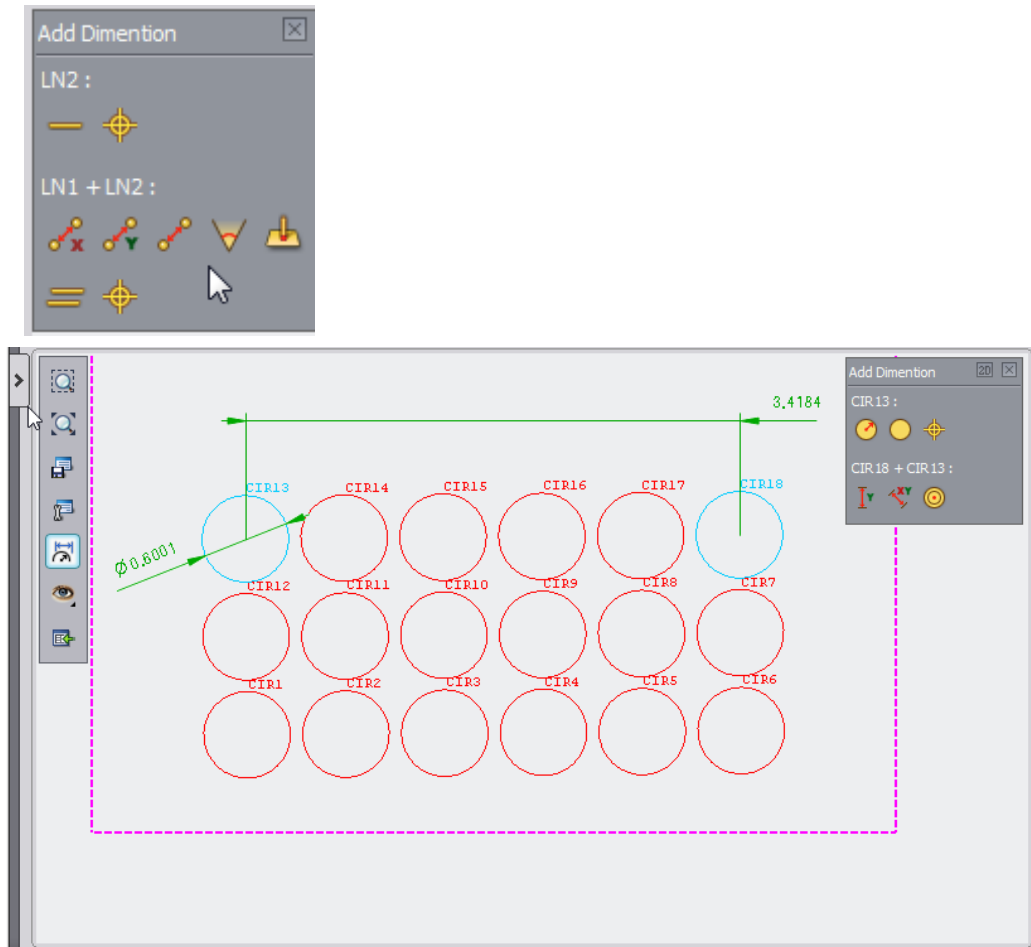
Click “Label”



Left click to select features need to label in graphic (feature color turns to light blue after selected)



Select tolerance of label dimension (the above row is dimension of single feature, below is tolerance relationship of between two features)



9. Data Output

9.1 Direct output feature or tolerance

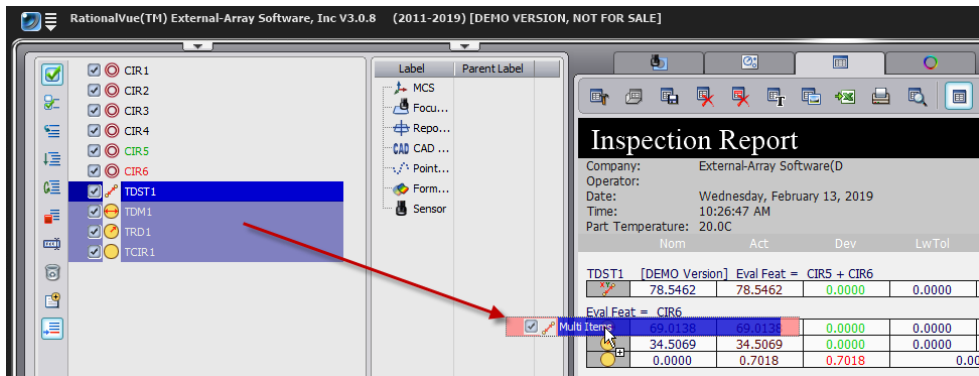
Select output report window

Inspection Report

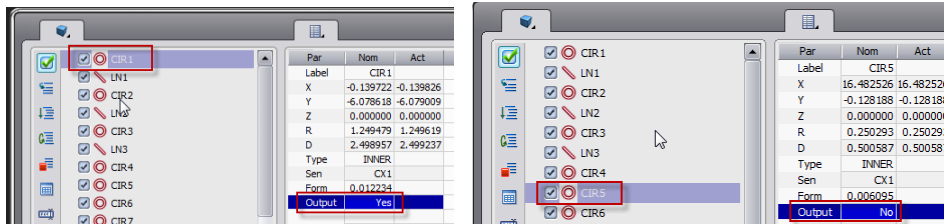
Company: External-Array Software(D)
 Operator:
 Date: Wednesday, February 13, 2019
 Time: 10:11:57 AM
 Part Temperature: 20.0C

	Nom	Act	Dev	LwTol	UpTol	Trend
TDST1 [DEMO Version] Eval Feat = CIR5 + CIR6	78.5462	78.5462	0.0000	0.0000	0.0000	MCS/MM/ANGDEC
Eval Feat = CIR6	69.0138	69.0138	0.0000	0.0000	0.0000	MCS/MM/ANGDEC
	34.5069	34.5069	0.0000	0.0000	0.0000	
	0.0000	0.7018	0.7018	0.0000	0.7018	

Drag features drop onto output window



Feature property will automatic record whether to output, run program will export outputted features automatically.

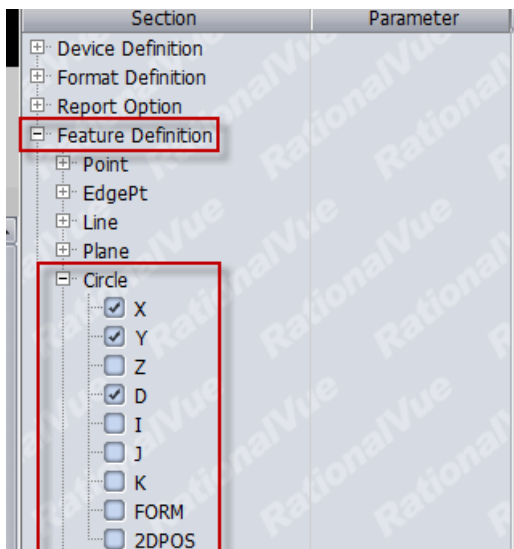


9.2 Modify feature output

Select output setup

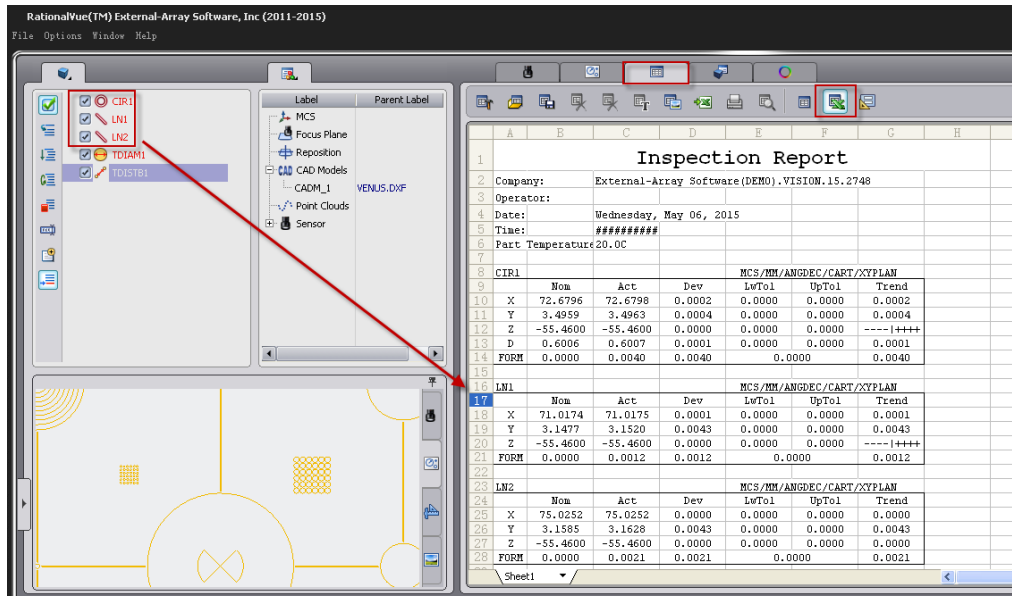


Setup output items of feature



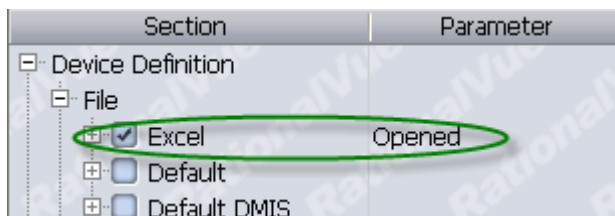
9.3 Excel Export

Switch to Excel export panel in output window, drag and drop features from data area onto Excel export panel that output report of Excel format can be completed.



Run program export to Excel

In output setup, selected Excel in file option of Device definition. When feature property setup as “Output”, Excel window will export automatically.




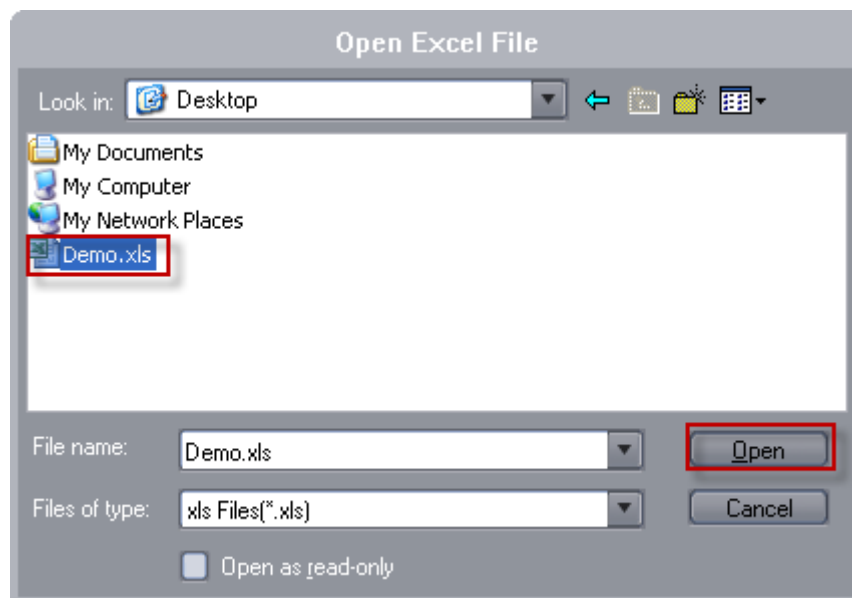
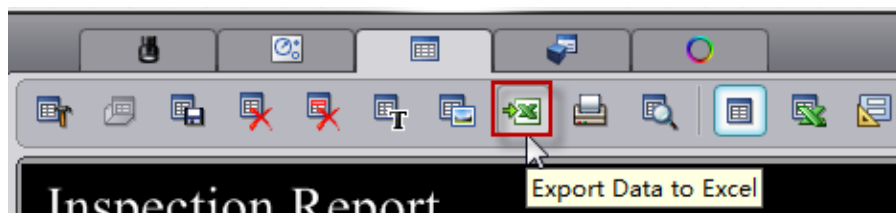
9.4 Outer Excel Export

After completion of the measurement data of multiple parts if you want to output to the same output report, selectable output external Excel file, output of the external Excel follows

A user-defined output template

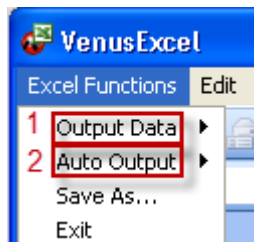
External-Array Software Inc.										Circle Right Option									
Document Number: GR-PK-15										1 First Article									
Document name: First Article Inspection Request										2 Measurement Request									
Part No.:										3 At Supplier Facilities									
Date:										F.A NO.:									
Spec.:										Supplier Name:									
Spec. L:										Sample									
Spec. U:																			
Equipment:																			
1										2									
2										3									
3										4									
4										5									
5										6									
6										7									
7										8									
8										9									
9																			
Cosmetic Note:																			
Dimension Result										Inspected BY:									
Pass										Fail									
Conclusion																			

In the Output window, select the output data to Excel icon , and then open the previously defined EXCEL form.

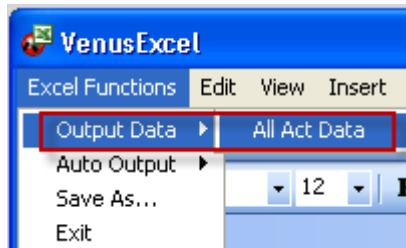


RationalVue output external EXCEL divided into two ways

1. Manually output; 2. Automatic output



Manually output



This function is the way to extract the “Actual” from the output window. Output to External excel to the designated location.

The screenshot shows the Inspection Report window. The table displays inspection data for various features. The 'Act' column is highlighted with a red box. The table includes columns for Nom, Act, Dev, LwTol, UpTol, and Trend.

	Nom	Act	Dev	LwTol	UpTol	Trend
TDiam2 Eval Feat = CR1	2.4992	2.4987	-0.0005	0.0000	0.0000	MCS/MM/ANGDEC
TDiam3 Eval Feat = CR2	0.9999	0.9996	-0.0003	0.0000	0.0000	MCS/MM/ANGDEC
TDistb1 Eval Feat = CR1 + CIR2	5.3821	5.3823	0.0002	0.0000	0.0000	MCS/MM/ANGDEC
TDiam4 Eval Feat = CR3	0.7503	0.7496	-0.0007	0.0000	0.0000	MCS/MM/ANGDEC
TDistb2 Eval Feat = CR2 + CIR3	5.0583	5.0577	-0.0005	0.0000	0.0000	MCS/MM/ANGDEC
TDiam5 Eval Feat = CR4	0.5001	0.5004	0.0003	0.0000	0.0000	MCS/MM/ANGDEC
TDistb3 Eval Feat = CR3 + CIR4	5.4543	5.4542	-0.0001	0.0000	0.0000	MCS/MM/ANGDEC
TDiam6 Eval Feat = CR5	0.7497	0.7494	-0.0003	0.0000	0.0000	MCS/MM/ANGDEC
TAngb1 Eval Feat = LN1 + LN2	86.4892	89.7218	3.2325	0.0000	0.0000	MCS/MM/ANGDEC

Step

- 1) Open the special external Excel, through the output position that the mouse specify the starting cell

Microsoft Excel - Demo

File Edit View Insert Format Tools Data Window Help Foxit Reader PDF Type a question for help

Arial 12 B I U

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1			External-Array Software Inc.				Circle Right Option							
2							1.First Articl							
3							2.Measurement Request							
4							3.At Supplier Facilities							
5		Part No.:		Rev.:			F.A NO.:		Supplier Name:					
6		Date:							Sample					
7	No.	Spec.	Spec.L	Spec.U	Equipment		1	2	3	4	5	6	7	8
8	1				42.9									
9	2				42.15									
10	3				90.15									
11	4				90.12									
12	5				90.2									
13	6													
14	7													
15	8													
16	9													
17	Cosmetic Note:													
18	Dimension Result	Pass	Fail						Inspected BY:					
19	Conclusion													

2) Select Excel Function→Output Data→All Act Data, set the output mode

Cell output control

☐ By Column ☒ By Row

Count in Each Row/Column: 2

OK Cancel

By Column: According to the column output

By Row: According to the row output

Count in Each Row/Column

Row/Column Count

3) After setting the output mode, click OK, the actual data elements will be output to a user-specified location.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1			External-Array Software Inc.				Circle Right Option							
2							1.First Articl							
3							2.Measurement Request							
4							3.At Supplier Facilities							
5		Part No.:		Rev.:			F.A NO.:		Supplier Name:					
6		Date:							Sample					
7	No.	Spec.	Spec.L	Spec.U	Equipment		1	2	3	4	5	6	7	8
8	1				42.9		42.908	42.91						
9	2				42.15		42.147	42.144						
10	3				90.15		90.156	90.155						
11	4				90.12		90.129	90.129						
12	5				90.2		90.202	90.211						
13	6													
14	7													
15	8													
16	9													
17	Cosmetic Note:													
18	Dimension Result	Pass	Fail						Inspected BY:					
19	Conclusion													
20														
21														
22														
23														
24														
25														

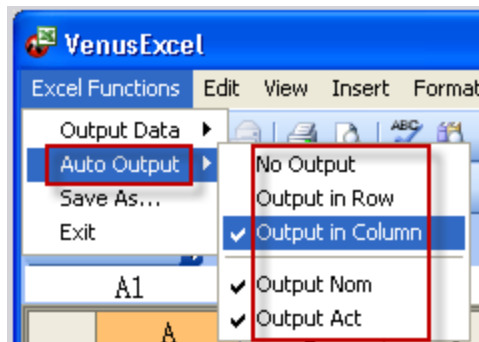
Cell output control

☒ By Column ☐ By Row

Count in Each Row/Column: 2

OK Cancel

Automatic output



This function is set the output mode first and then run the program while the output data to the Excel spreadsheet

No Output: After selecting this item, the data is not automatically output

Output in Row: According to the column output

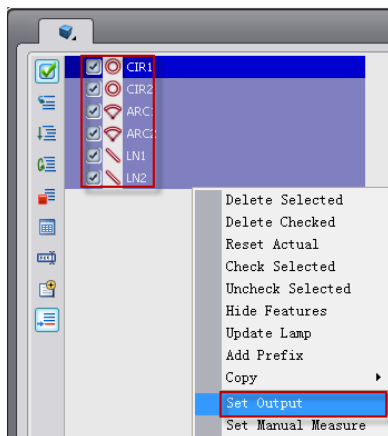
Output in Column: According to the row output

Output Nom: Output theoretical data and select the item, only the first time when you run the program you will output the theoretical data

Output Act: Output the actual data, every time you run the program, the software will output the data to the Excel form automatically.

Step:

1) Select the element to be outputted, click right to set output.



2) Open the special external Excel, through the output position that the mouse specify the starting cell


Microsoft Excel - Demo

File Edit View Insert Format Tools Data Window Help Foxit Reader PDF

Type a question for help

Arial 12 B I U

F23

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1			External-Array SoftWare Inc.				Circle Right Option							
2							1.First Article							
3	Document Number:GR-PK-15						2.Measurement Request							
4	Document name: First Article Inspection Request						3.At Supplier Facilities							
5	Part No.:				Rev.:		F.A NO.:			Supplier Name:				
6	Date:						Sample							
7	No.	Spec.	Spec.L	Spec.U	Equipment	1	2	3	4	5	6	7	8	9
8	1				42.9									
9	2				42.15									
10	3				90.15									
11	4				90.12									
12	5				90.2									
13	6													
14	7													
15	8													
16	9													
17	Cosmetic Note:													
18	Dimension Result		Pass	Fail			Inspected By:							
19	Conclusion													

3) Run the program, the next picture shows the specified location, according to the column output.

VenusExcel

Excel Functions Edit View Insert Format Tools Data Foxit Reader PDF Help

Output Data

Auto Output

Save As...

Exit

No Output

Output in Row

Output in Column

043

	A		D	E	F	G	H	I	J	K
1										
2										
3										
4										
5										
6										
7	No.	Spec.	Spec.L	Spec.U	Equipment	1	2	3	4	5
8	1					2.4043	1.3010	0.0000	1.3858	0.0000
9	2					2.3957	1.2839	0.0000	1.3858	0.0000
10	3									
11	4									
12	5									
13	6									

4) The next picture shows the specified location, according to the row output.

VenusExcel

Excel Functions Edit View Insert Format Tools Data Foxit Reader PDF Help

Output Data

Auto Output

Save As...

Exit

No Output

Output in Row

☒ Output in Column

☒ Output Nom

☒ Output Act

043

OutPut In Column

Start Cell

	A		D	E	F	G	H	I	J
3	Document Nu					2.Measurement Request			
4	Document name: First Article Inspection Request					3.At Supplier Facilities			
5	Part No.:		Rev.:			F.A NO.:		Supplier Name:	
6	Date:							Sample	
7	No.	Spec.	Spec.L	Spec.U	Equipment	1	2	3	4
8	1					2.4043	2.4043		
9	2					1.3010	1.3010		
10	3					0.0000	0.0000		
11	4					1.3858	1.3858		
12	5					0.0000	0.0000		
13									

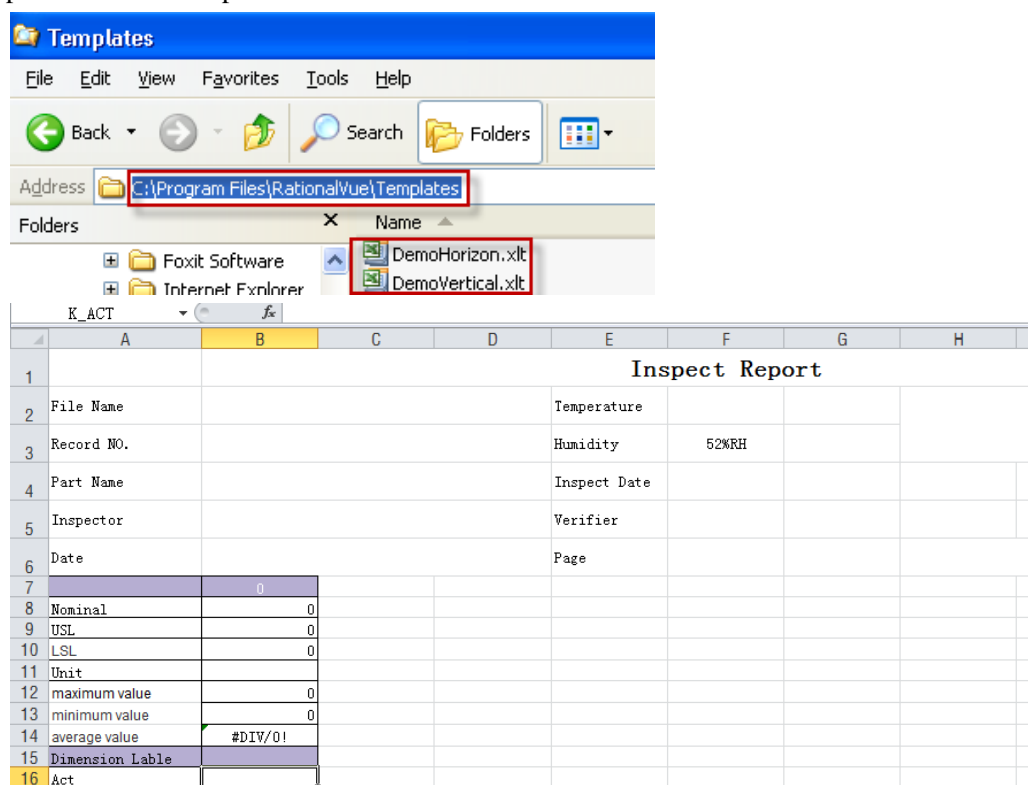
9.5 Customization of report output

RationalVue to provide customers with a complete output report and in accordance with the customer output reports to be customized output. The main support for Excel, PDF and TXT these three kinds of documents. The following Excel output example:

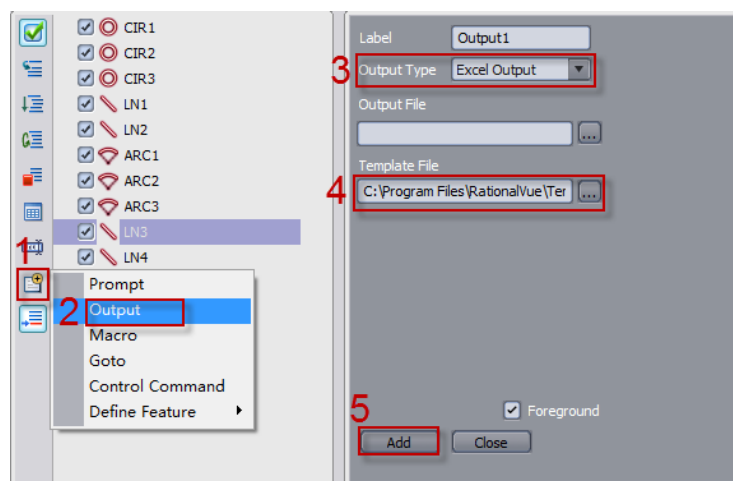
Customer customized report styles

Production report templates, report templates general format is * .xltx (above office2007 version) or * .xlt (Office2003 version)

RationalVue software in the root directory C: \ Program Files \ RationalVue \ Templates, we have provided two examples



Before output in the program, add the output template



Output template path is C: \ Program Files \ RationalVue \ Templates \ Demo Horizon.xltx

After the addition, continue to complete the calculation of tolerance

Open the output template and then run the program, to complete the output data

B22		0.8008							
	A	B	C	D	E	F	G	H	I
1	Inspect Report								
2	File Name				Temperature	20.0C			
3	Record NO.				Humidity	52%RH			
4	Part Name				Inspect Date	y, September 26, 2013			
5	Inspector				Verifier				
6	Date				Page				
7		TOTAM1	DEMO Ver.1	DEMO Ver.2	DEMO Ver.1	DEMO Ver.2	DEMO Ver.3	DEMO Ver.3	DEMO Ver.4
8	Nominal	0.8007	1.6901	0.845	89.0013	0.8012	0.8007	0.845	0.8002
9	USL	0	0	0	0	0	0	0	0
10	LSL	0	0	0	0	0	0	0	0
11	Unit	MM/ANGDEC	MM/ANGDEC	MM/ANGDEC	MM/ANGDEC	MM/ANGDEC	MM/ANGDEC	MM/ANGDEC	MM/ANGDEC
12	maximum value	0.8008	1.6902	0.8451	89.1315	0.8012	0.8009	0.8454	0.8027
13	minimum value	0.8008	1.6901	0.8451	89.1315	0.8012	0.8008	0.845	0.8023
14	average value	0.8008	1.690175	0.8451	89.1315	0.8012	0.8008125	0.84505	0.80235
15	Dimension Lable	1	DEMO Ver.1	DEMO Ver.2	DEMO Ver.1	DEMO Ver.2	DEMO Ver.3	DEMO Ver.3	DEMO Ver.4
16		0.8008	1.6901	0.8451	89.1315	0.8012	0.8009	0.8454	0.8027
17		0.8008	1.6901	0.8451	89.1315	0.8012	0.8008	0.845	0.8023
18		0.8008	1.6902	0.8451	89.1315	0.8012	0.8008	0.845	0.8023
19		0.8008	1.6902	0.8451	89.1315	0.8012	0.8008	0.845	0.8023
20		0.8008	1.6902	0.8451	89.1315	0.8012	0.8008	0.845	0.8023
21		0.8008	1.6902	0.8451	89.1315	0.8012	0.8008	0.845	0.8023
22		0.8008	1.6902	0.8451	89.1315	0.8012	0.8008	0.845	0.8023
23		0.8008	1.6902	0.8451	89.1315	0.8012	0.8008	0.845	0.8023