RAYDISOFT

X-ray Inspection software company

RAYDISOFT Product Introduction

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About Us : Raydisoft Inc.

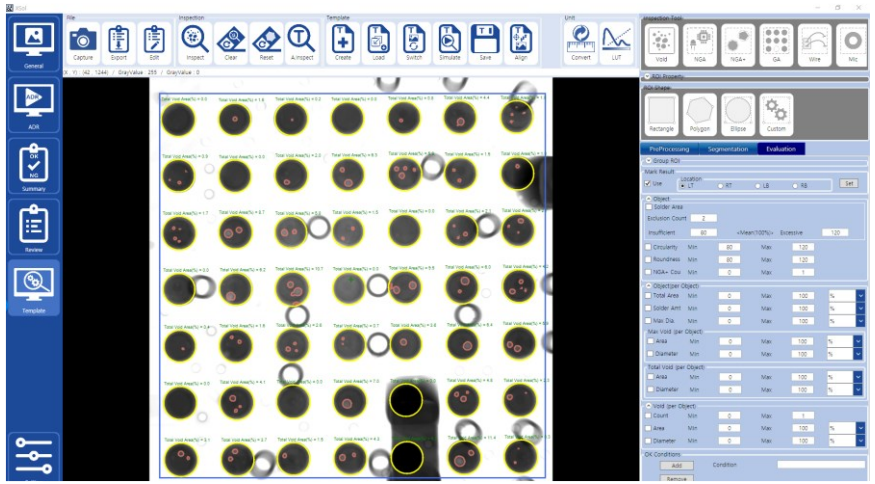
Raydisoft Inc. is a company that provides X-ray vision inspection software and inspection-related services applicable to various fields such as SMT, displays, and semiconductors. We have proprietary software technology that enables automatic inspection on manual X-ray inspection equipment.

Main Business

- Electronic components inspection solutions
- Custom inspection solutions
- Statistical process control analysis solutions
- Inspection services (maintenance, image analysis, inspection setup, training, etc.)

About Program : X-SOL

The X-SOL program is a vision inspection software that can perform automated / semi-automated / manual inspection of electronic parts such as BGA, QFN, Chip, LED, and various industrial components using X-ray transmission image data.



Main Features

- Easy and intuitive UI
- Can be applied to real-time / batch automatic inspection
- Able to inspect various defect types of electronic parts simultaneously
- Able to set logical operation for evaluation
- Provides a review mode that allows you to view and modify inspection results
- Can be used in conjunction with CT data

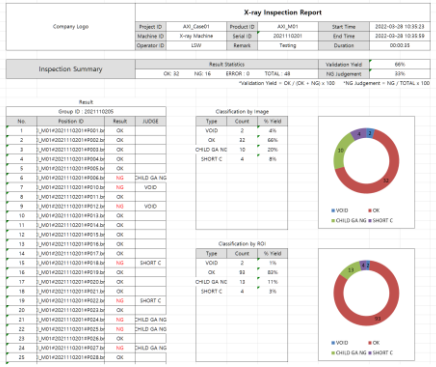
About Program : AxistManager

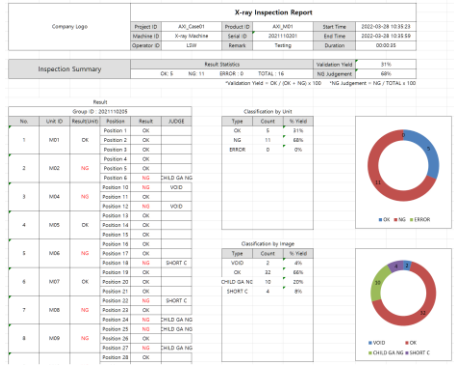
The AxistManager program manages the automatic inspection macro settings such as file path designation, file name, and template matching rules so that X-ray inspection equipment can perform the automated inspections.

It also provides report generation functions such as image report, group report, and result map based on the inspection results.

Main Features

- Provides the gateway function that connects the equipment operation program and the X-SOL program
- Sets up the X-SOL ADR macros for automated inspection and manages them as project files
- Generates Single image and group inspection report automatically after the inspection
- Creates Real-time result map during the inspection





System Requirements

	Minimum	Recommended	Remark
OS	Window 7, 10 (32/64-bit)	Window 7, 10 (64-bit)	-
CPU	Intel Core® i3 or AMD Athlon™ 64 X2	Intel Core® i7 or higher	-
RAM	4 GB	8 GB	-
Storage	HDD 2 GB of free space	SSD 100 GB & HDD 500 GB of free space	SSD for Automatic Inspection HDD for data storage
Display Resolution	1920 x 1080 (FHD)	1920 x 1080 (FHD)	FHD resolution with 100% text size
GPU	-	-	TBD
Network	-	-	Local network recommended when separating inspection control PC and analysis PC
X-ray System	Image Save	Auto Teaching Function	-
Etc.	.NET Framework 4.5 Visual C++ 2017 redistributable (x86, x64)	PDF Reader MS Office Excel	.NET Framework 4.5 and Visual C++ 2017 redistributable (x86, x64) are included in the installation file

Configuration of Product Family Functions

Product	Model	Feature	Remark
BASE	BASE	Mode : General (Measure I), Template, Review Module : VOID, NGA Management : AxistManager BASE	Suitable for basic measurement such as length, general 2D void inspection, CT cross-section void inspection, and PAD void inspection, etc.
	BASE+	Mode : General (Measure II, Filter I), Template, Review Module : VOID, NGA, NGA+ Management : AxistManager BASE	All functions included in BASE products & BGA void inspection and measurement (PTH, Wire sweep)
STANDARD	STANDARD	Mode : General (Measure II, Filter I), Template, Review, ADR Module : VOID, NGA Management : AxistManager STANDARD	Includes all BASE product functions & ADR, group reporting, and measurement (PTH, Wire sweep)
	STANDARD+	Mode : General (Measure II, Filter II), Template, Review, ADR Module : VOID, NGA, NGA+ Management : AxistManager STANDARD	Includes all STANDARD product functions & Filters such as edge enhancement and BGA void inspection
PRO	PRO	Mode : General (Measure II, Filter II), Template, Review, ADR Module : VOID, NGA, NGA+, GA Management : AxistManager PRO	Includes all STANDARD+ product functions & Result map output, group reporting as PCB unit results Freely select either GA or WIRE option within the program.
		Mode : General (Measure II, Filter II), Template, Review, ADR Module : VOID, NGA, NGA+, WIRE Management : AxistManager PRO	

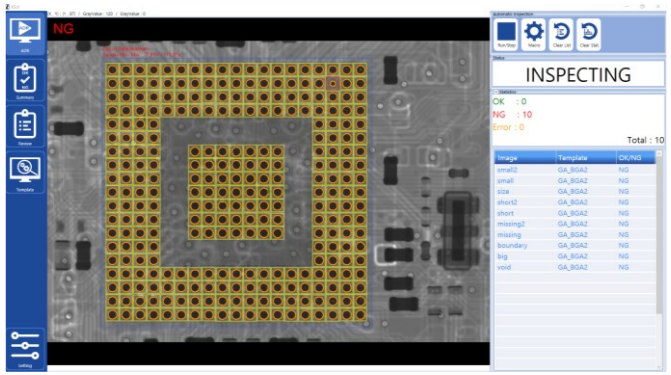
Comparison of Product Family Features

Product	Category	Feature	Product Comparison		
			BASE+	STANDARD+	PRO
BASE+	Measurements & Filters	Basic measurements and image filters, Advanced measurements (PTH, Wire Sweep, etc.)	O	O	O
	Inspection Modules	Void, NGA, NGA+	O	O	O
	Review	Ability to review and edit inspection results	O	O	O
	Image Report	Manual generation of single image reports	O	O	O
STANDARD+	Measurements & Filters	OK/NG judgement during measurement, Advanced image filter (Edge Enhancement)	X	O	O
	Inspection	Automatic inspection by managing inspection settings on a project basis, Template-based automatic and semi-automatic inspection	X	O	O
	Image Report	Automatic generation of single image reports	X	O	O
	Group Report	Automatic generation of reports for each inspection cycle (group)	X	O	O
PRO	Inspection Modules	GA, WIRE	X	X	O
	Group Report	Report generation function by product unit, Real-time result map display and output	X	X	O

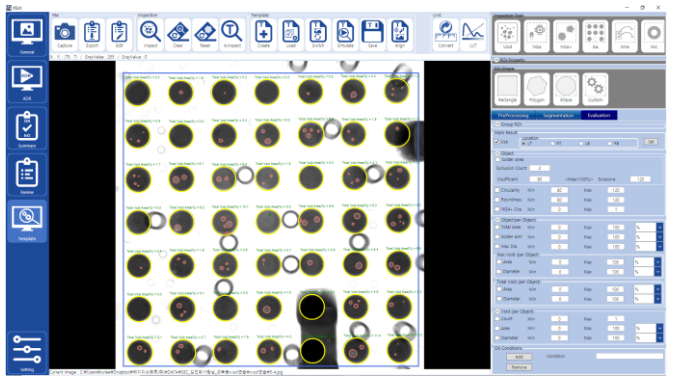
Main Modes

Program Layout

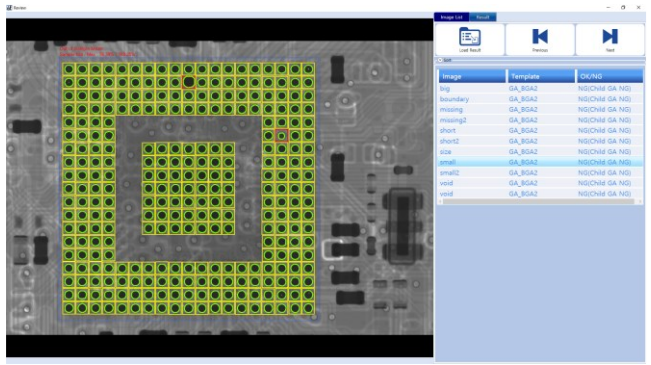
General Mode



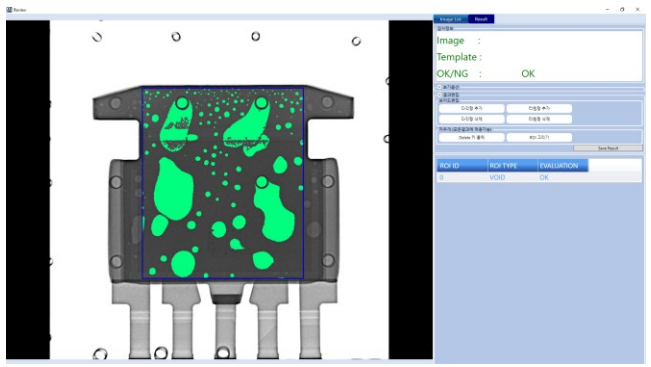
ADR Mode



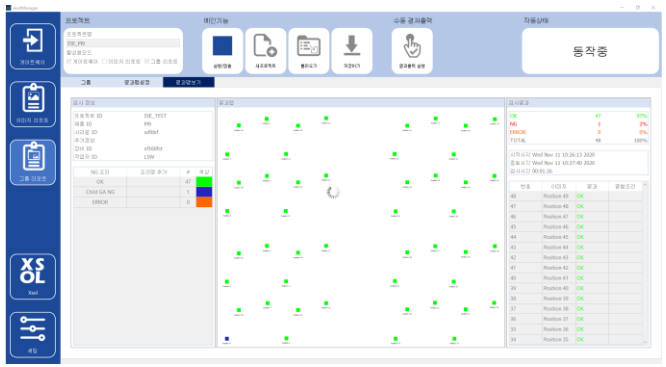
Template Mode



Review Mode (Image List)

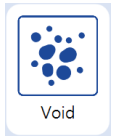
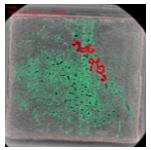
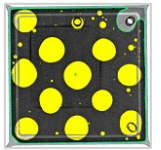
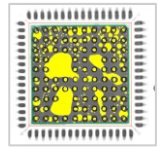
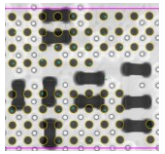
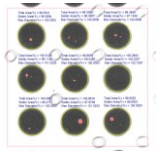
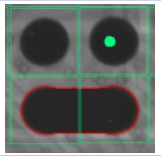
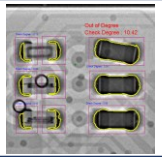
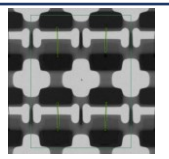
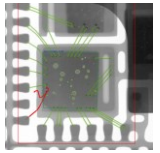
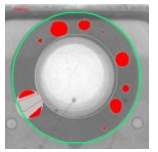


Review Mode (Result)

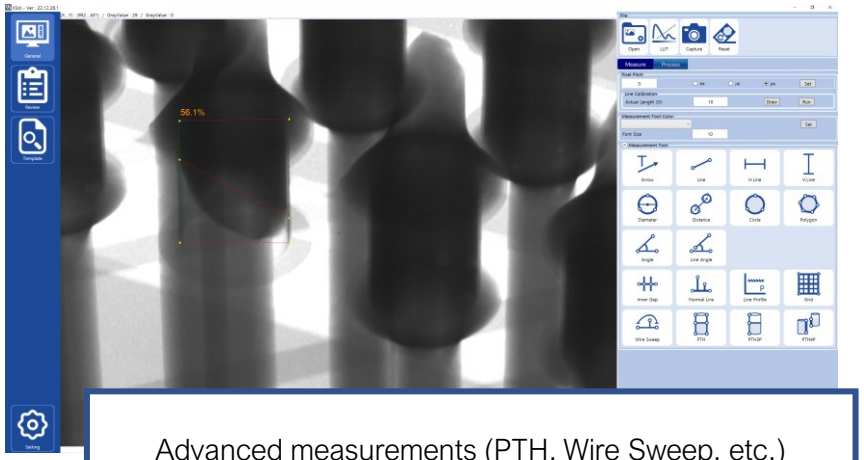


Group Report Mode (Result Map)

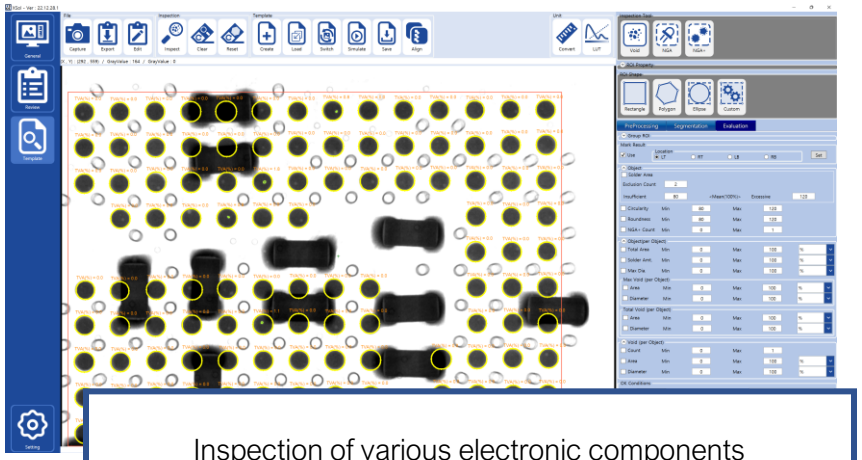
Inspection Modules

Inspection Module		Explanation	Example	
Void		General purpose void inspection The Void module finds voids inside the drawn inspection area of interest.		
NGA		(QFN,QFP) Thermal Pad, LED Pad, Isolated BGA The NGA module inspects a single object that is not fixed, such as a solder pasted area on a thermal pad.		
NGA+		Die Pad, LED Pad, LGA, Isolated BGA, Overlapped BGA, Wafer, MIC NGA+ module individually inspects multiple objects at once, such as BGA balls.		
GA		Die Pad, Isolated BGA, Overlapped BGA, Chip GA module checks short, misalignment, missing defects, and void and solder status.		
Wire		LED Wire, IC Wire Wire module inspects patterned wires for checking wire sweep, sagging, position, counts.		
Mic		Mic (Microphone) Mic module inspects ring-shaped components for checking disconnection, peeling, and void conditions.		

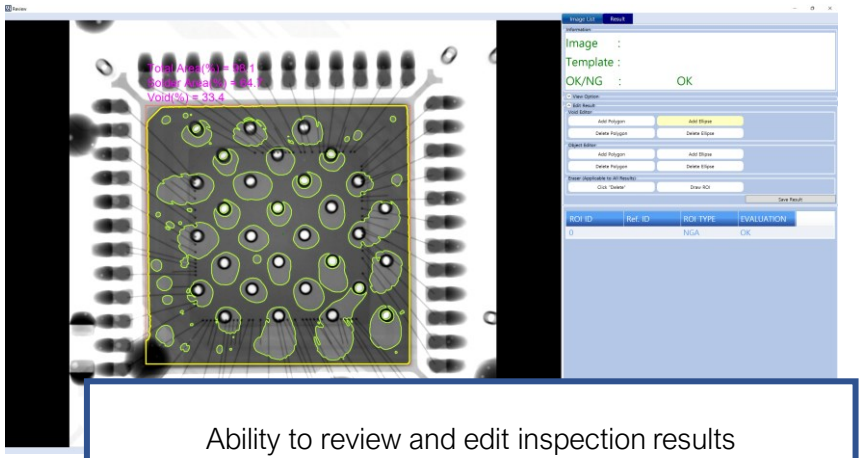
Product Main Features (BASE+ or Higher)



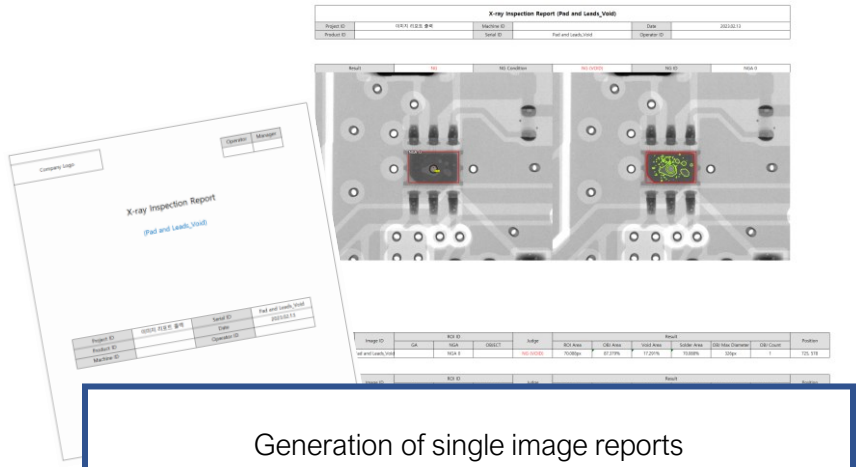
Advanced measurements (PTH, Wire Sweep, etc.)



Inspection of various electronic components

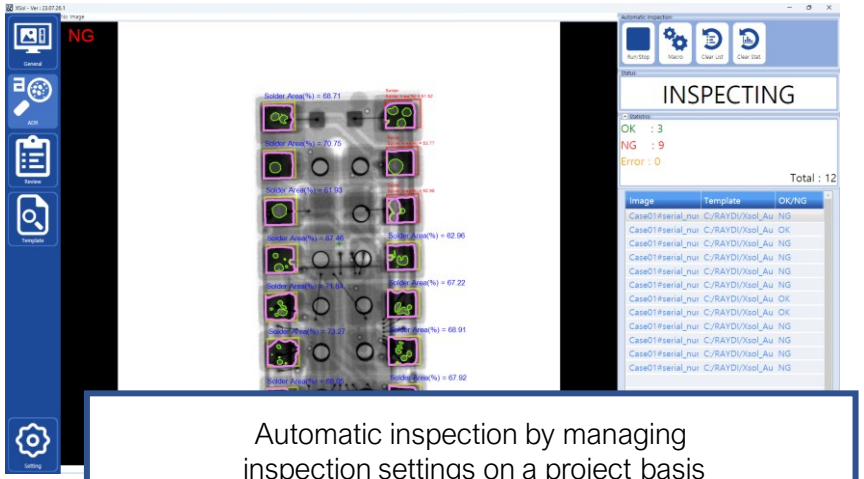


Ability to review and edit inspection results

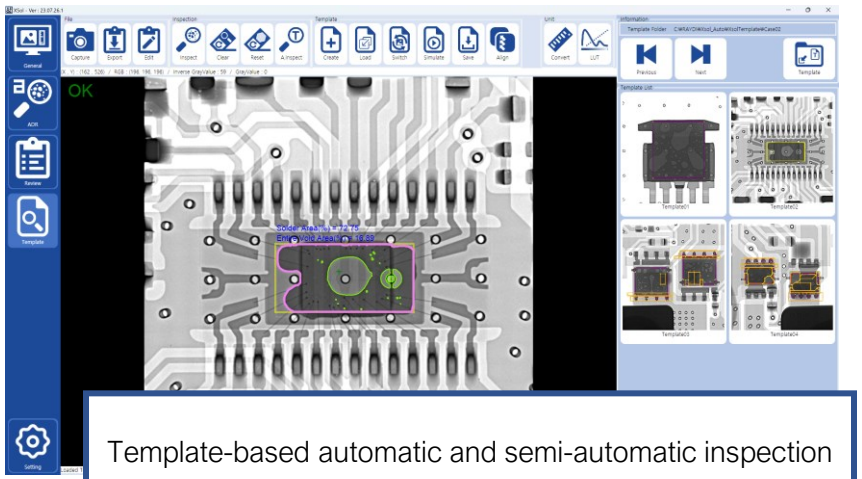


Generation of single image reports

Product Main Features (STANDARD+ or Higher)

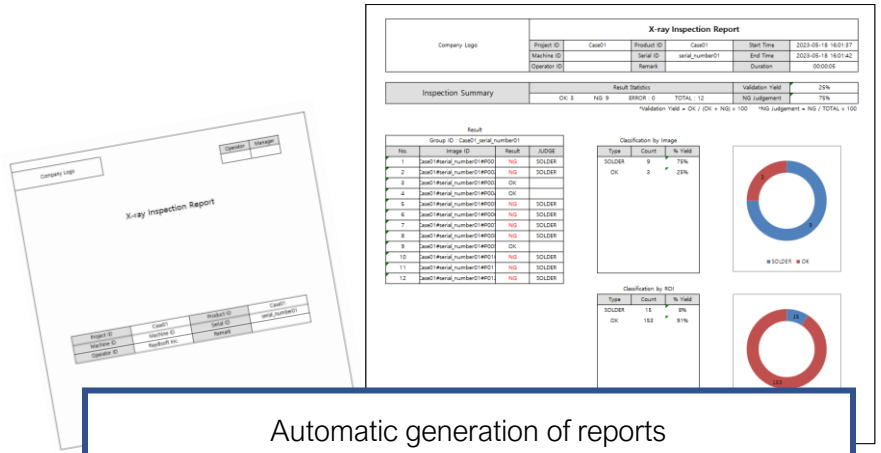


Automatic inspection by managing inspection settings on a project basis



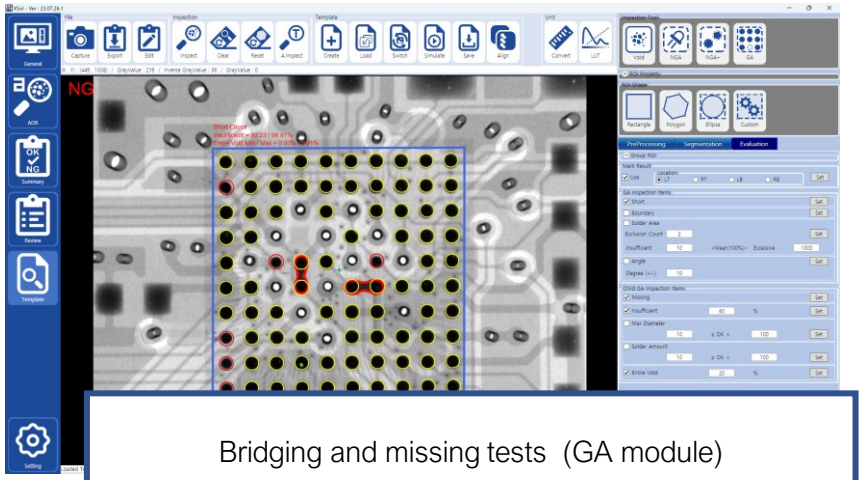
Template-based automatic and semi-automatic inspection

OK/NG judgement during measurement

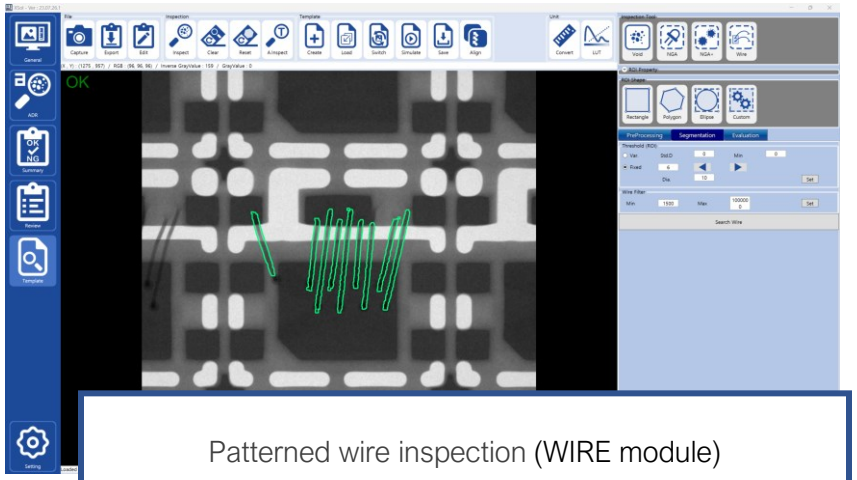


Automatic generation of reports for each inspection cycle (group)

Product Main Features (PRO or Higher)



Bridging and missing tests (GA module)



Patterned wire inspection (WIRE module)

Report generation function by product unit

Real-time result map display and output