KASON

KS201-AW computerized Metallurgical Microscope

1 9 YEARS

Development Base of Advanced Testing Machine Of China

1. Application

Introduction

KS201-AW computerized metallographic microscope is a trinocular inverted metallographic microscope, which can provide superior image quality and a stable and reliable mechanical structure. The machine is easy to operate, complete with accessories, and is widely used in metallographic analysis of teaching and research and material testing in factory laboratories.

Observation tube

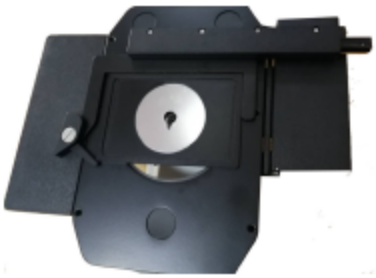
Hinged trinocular, adjustable diopter, 45° inclination, can be used for photography, capture and save observation images, configure computer and professional metallographic analysis software to realize image analysis.

Focusing mechanism

Low-hand position coarse and fine adjustment coaxial focusing mechanism, with elastic adjustment device and fast focus random limit device, coarse adjustment stroke per revolution: 38mm, fine adjustment accuracy: 0.002mm

Stage

The coaxial low-hand position adjustment moving ruler and the stage extension board can be installed to expand the application space and meet the needs of customers with different requirements.



Main Specifications

Standard Accessories		Model
Unit	**Specification**	**KS201-AW**
Optical system	Infinite distance chromatic aberration correction optical system	●

Observation tube	Hinged triocular head, 45° tilt, pupil distance adjustment range: 54-75mm, unilateral visibility adjustment ±5 diopter ratio: binocular 100%, binocular: triocular =80%:20%	●
Eyepiece	High eye point, extra-wide field eyepiece PL10X/22mm	●
An achromatic objective with an infinitely long anomaly field	LMPL5X / 0.15WD10.8mm	●
	LMPL10X/ 0.3WD12.2mm	●
	LMPL20X/ 0.45WD4mm	●
	LMPL50X/ 0.55WD7.9mm	●
Convertor	Internal positioning five-hole converter	●
Microscope body	Coarse fine adjustment coaxial, coarse adjustment per turn stroke: 38mm, fine adjustment per turn stroke: 0.2mm, focusing accuracy: 0.002mm, with elastic adjustment device	●
	Fixed platform: Size 160X250mm	●
Work stage	Metal stage (center hole Φ12mm)	●
	Mechanical moving ruler, travel 120 (X) *78 (Y) mm, stage extension plate	●
Reflective lighting system	Reflection type Cora illuminator, with variable aperture light bar and center adjustable field of view light bar, adaptive 100V~240V wide voltage, 12V50W imported halogen lamp, center adjustable, continuous brightness adjustable	●
Polarizing attachment	The polarizing mirror can be rotated 360 degrees, and the polarizing mirror and the polarizing mirror can be moved out of the light path	●
Color filter	Green filter, Blue filter (Φ32mm)	●
Metallographic analysis system	FMIA2023 genuine metallurgical analysis software, USB2.0 SONY chip 12 million camera device, 0.5X adaptive mirror interface, micrometer.	●
OPTIONAL		
Unit	**Specification**	
Eyepiece	High eye point, ultra-wide field of view flat field eyepiece PL15X/16mm	O
	High eye point, extra-wide field eyepiece PL10X/22mm with cross differentiation scale	

Objective lens	Infinite long anomaly field achromatic objective LMPL100X/ 0.80WD2.1mm	O
Camera unit	USB3.0 SONY chip 12 million camera device, USB3.0 SONY chip 20 million camera device, 1X adaptive mirror interface.	O
Computer	HP business	O

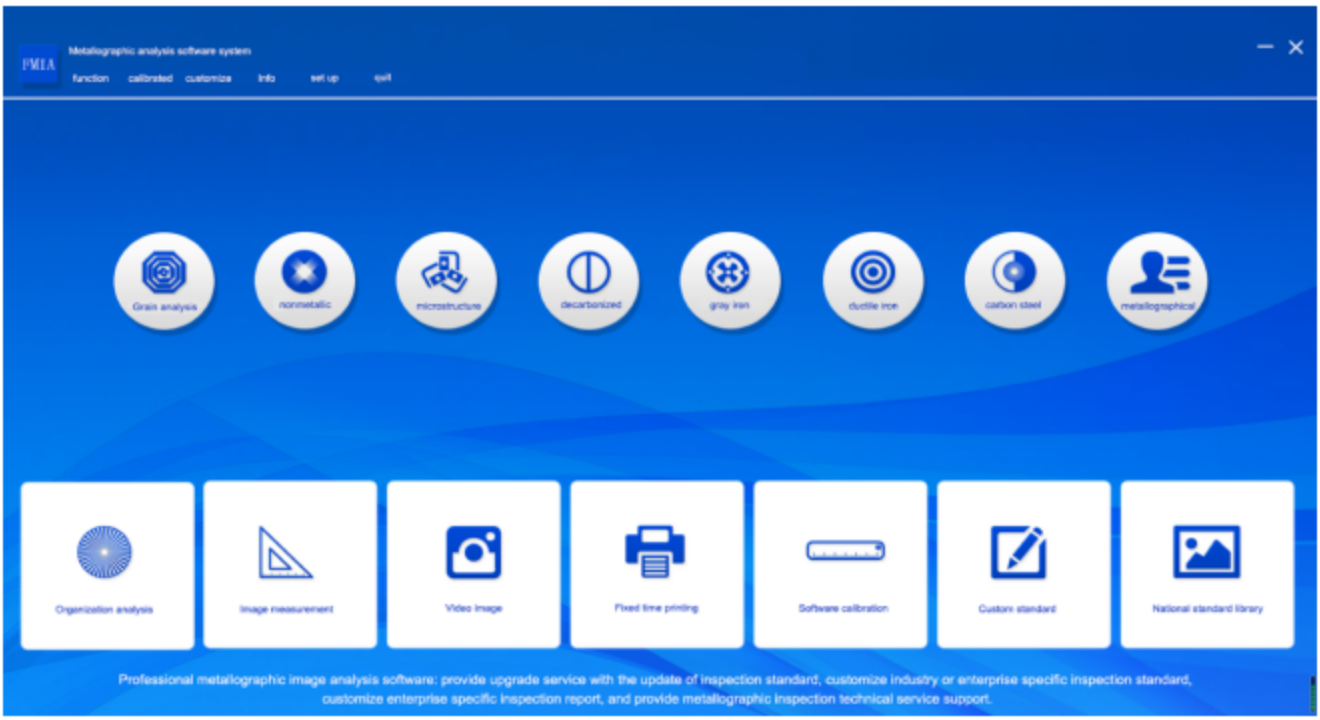
Note: "●" is standard configuration; "O" is optional

Metallographic image analysis software system

FMIA2023 version of metallographic image analysis software system, is our company combined with the current casting enterprises, auto parts enterprises, heat treatment enterprises, bearing steel industry, power system industry, railway parts industry, as well as the relevant testing companies for metallographic testing needs, improve the product pass rate, help the laboratory inspection level to improve, We collect the needs of experts and teachers in various industries and develop this set of FMIA2023 version of metallographic image analysis software system.

The national standard library of the software system contains about 700 commonly used submodules in 150 categories, which basically covers the commonly used metallographic standards and meets the requirements of the vast majority of metallographic analysis and inspection units. According to the needs of different industries, relevant categories are designated and opened to meet the requirements of industry testing. Free access to all modules for life, free upgrade standards for life.

In view of the increasing number of new materials and imported grade materials, materials and assessment standards that have not been entered in the software can be customized and entered.



Features:

- Software installation is more intuitive and concise

The new software installation, registration, and calibration guide mode are simple and clear, and can be completed by default prompts.

- Genuine Software Assurance System

After the software installation is completed, the original software activation is performed first, and then the computer hardware ID registration is performed to ensure the legitimate rights of the customer.

- Quick access to 7 inspection categories

Statistical production of 7 categories of quick entry: grain size, non-metallic inclusions, steel microstructure, decarburization layer analysis, gray iron, ductile iron, carbon steel spheroidization, etc., plus a metallographic teaching.

- Demand standards can be customized

In addition to the standard testing modules, special testing modules can be customized according to customer needs, such as: corporate standards, special industry standards, etc.

- The report template can be modified

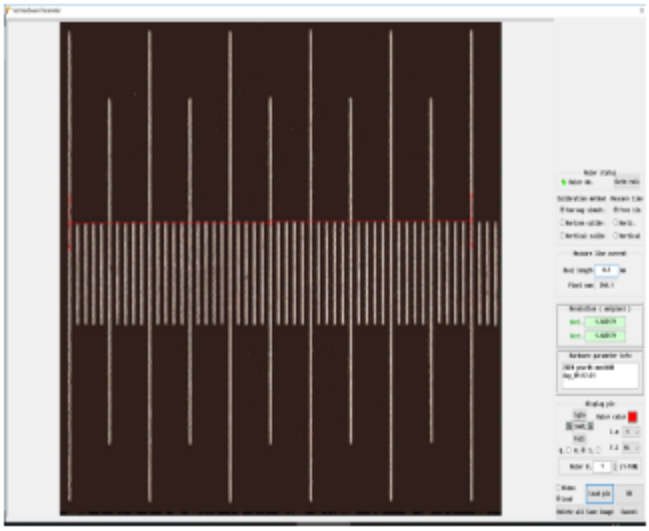
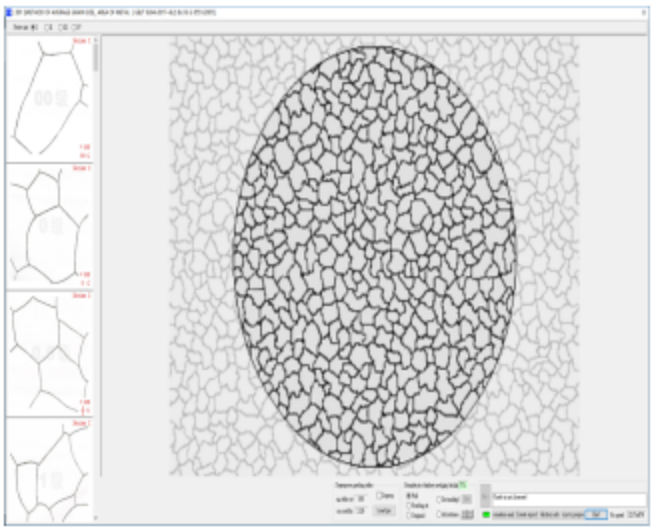
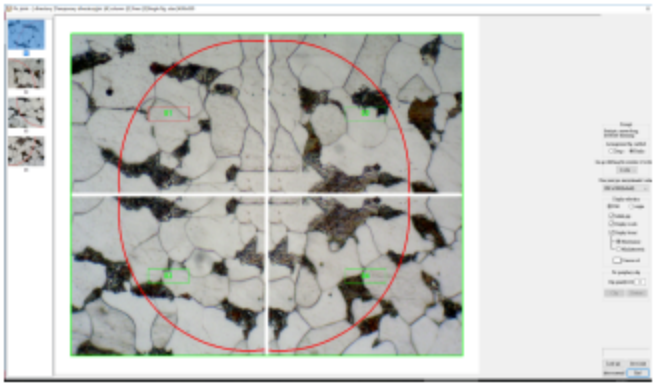
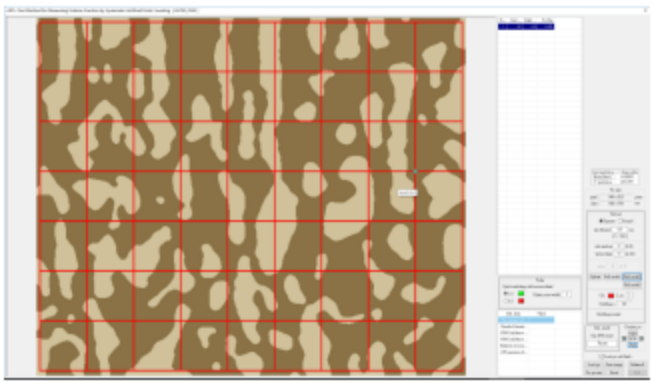
Report templates can be customized for different companies.

- Genuine software can be upgraded

According to the standard implementation time of the National Standardization Committee, the software will be upgraded for free.

- Wide application of computer systems

This software can be installed and run under Windows 7, Windows 10.

The latest metallographic software standard:---partial excerpt

- GB/T 6394-2017 Grain size measurement rating (grain boundary extraction, grain boundary reconstruction, single phase, dual phase, grain size measurement, rating)
- GB/T 10561-2005/ISO 4967:1998 Determination of non-metallic inclusion content in steel
- GB/T 7216-2009 gray cast iron: graphite distribution shape, graphite length, pearlite quantity, carbide quantity, etc.
- GB/T 9441-2009 Ductile Iron: Spheroidization Rate, Graphite Size, Pearlite Quantity, Carbide Quantity, etc.
- GB/T 26656-2011 Vermicular graphite cast iron: graphite morphology, creep rate, pearlite quantity, phosphorus eutectic quantity, carbide quantity, etc.
- GB/T 18254-2016 Metallographic examination of high carbon chromium bearing steel
- GB/T 34891-2017 Rolling bearings_Technical conditions for heat treatment of high carbon chromium bearing steel parts
- GB/T 1499.2-2018 Steel for reinforced concrete Part 2: Hot-rolled ribbed steel bars
- GB/T 1299-2014 tool steel
- GB/T 3246.1-2012 Microstructural test methods for wrought aluminum and aluminum alloy products_Part 1_Microstructure test methods

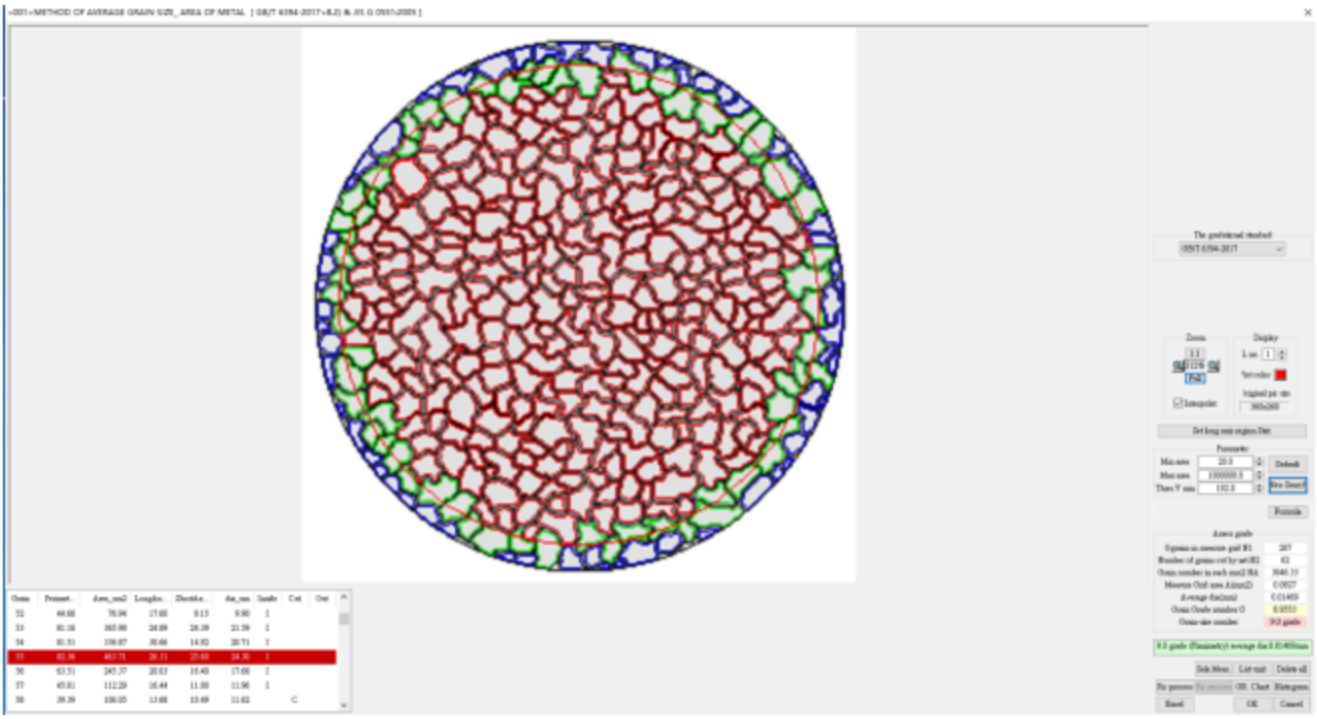
- GB/T 13925-2010 cast high manganese steel: grades of undissolved carbides, grades of precipitated carbides, grades of superheated carbides
- JB/T 7946-2017 Metallography of cast aluminum alloys
- JB/T 1255-2014 Rolling bearings_Technical conditions for heat treatment of high carbon chromium bearing steel parts
- JB/T 9986-2013 Tool Heat Treatment Metallographic Examination
- QC/T 262-1999 Metallographic examination of automobile carburized gears: martensite needle length, carbide, austenite rating, austenite content
- QC/T 502-1999 metallographic inspection of automobile induction hardening parts
- QC/T 553-2008 Metallographic Examination of Cast Aluminum Pistons for Automobile Engines
- TB/T2942.2-2018 Steel Castings for Locomotives and Rolling Stock Part II: Metallographic Examination Chart.
- TB/T 2478-1993 Metallographic Structure Grading Chart of Spring Bar
- TB/T 2451-1993 Metallographic examination of non-metallic inclusions in cast steel
- TB/T 2944-1999 Carbon steel forgings for railway
- DL/T 773-2016 Standard for spheroidization rating of 12Cr1MoV steel for thermal power plants_Characteristics of ferrite plus pearlite spheroidization
- DL/T 773-2016 Spheroidization rating standard for 12Cr1MoV steel for thermal power plants_Features of ferrite plus bainite or bainite spheroidization
- DL/T 1422-2015 18Cr-8Ni series austenitic stainless steel boiler tube microstructure aging rating standard
- ISO 4499-2016 Cemented carbide -- Metallographic determination of microstructure
- ASTM A262-2015 Test procedure for susceptibility to intergranular corrosion of austenitic stainless steel
- ASTM E45-2013 Evaluation method of inclusion content in steel

The national standard library contains about 700 commonly used sub-modules in 150 categories, basically covering the commonly used metallographic standards and meeting the requirements of metallographic analysis and inspection in most units; the software randomly releases about 120 commonly used sub-modules, and the others are all Lifetime free upgrade calls.

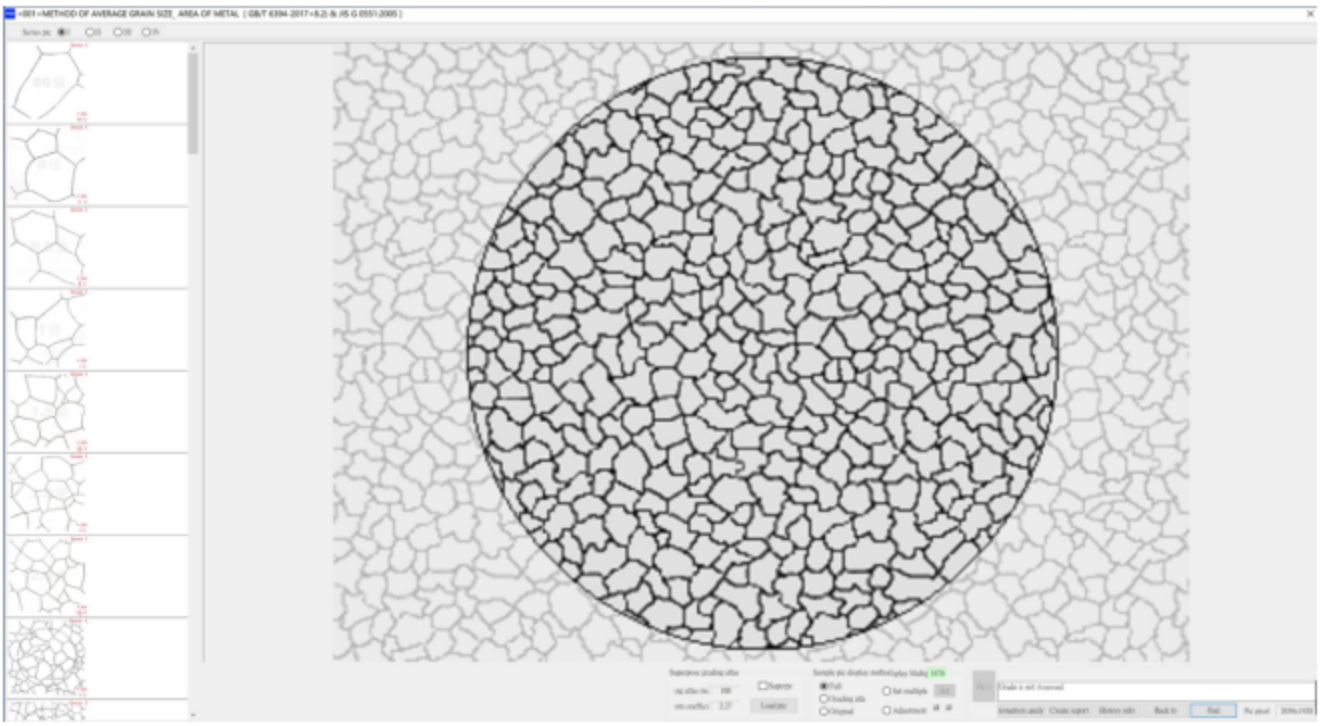
Basic skills:

1. Organization analysis

Correctly select the execution standard of the material, capture and take pictures of the metallographic structure of the sample through the camera system of the metallographic microscope, and enter the evaluation level interface:



(1) Automatic grading: If there are quantitative standards in metallographic standards (such as calculation formulas, percentage ranges, etc.), the software automatically grades, gives metallographic grades, and generates metallographic inspection reports.
(2) Comparison and rating: The software can also compare the sample map with the map in the gallery, and manually determine the level.
(3) Multi-module rating: Multiple modules can be counted at the same time
2. Image measurement

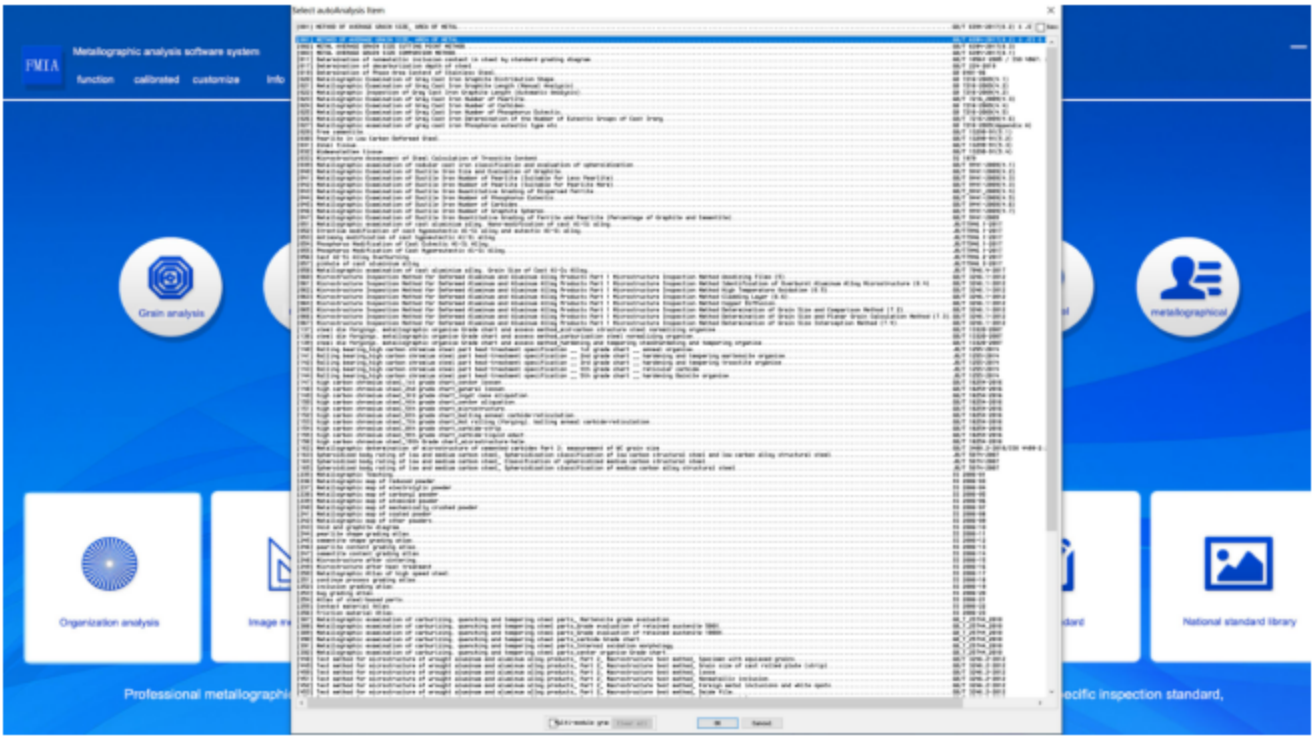


The software provides a variety of measurement tools such as distance, rectangle, circle, polygon, polyline length, angle, line angle, radian, point to circle center measurement, etc., to meet the user's basic geometric measurement functions and obtain relevant measurement data.

(1) Data export: The measured data can generate a dedicated measurement report with pictures and texts, and can also be directly imported into EXCEL.

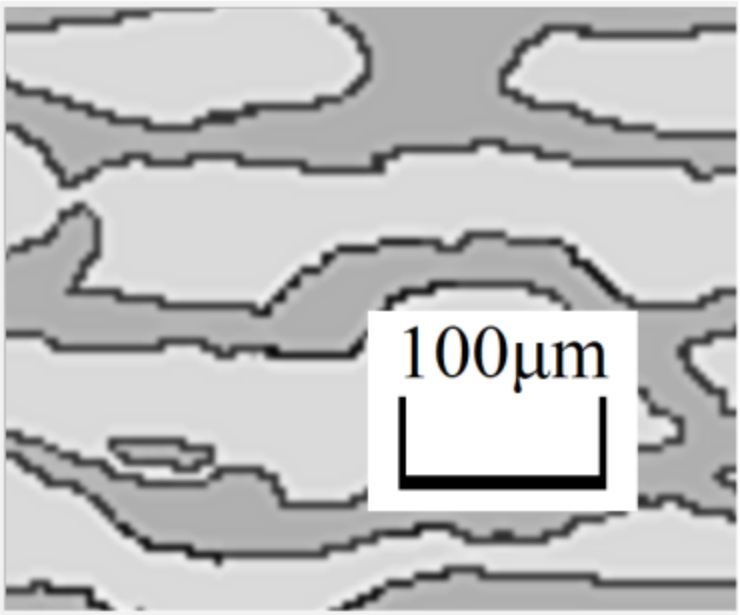
(2) Save the image: the measured data can be automatically fused with the picture, and the accuracy of the measured part can be displayed intuitively and clearly.

3. Standard library



The software provides the function of viewing the gallery, providing users with the latest national standard gallery.

4. Fixed-time printing (English)



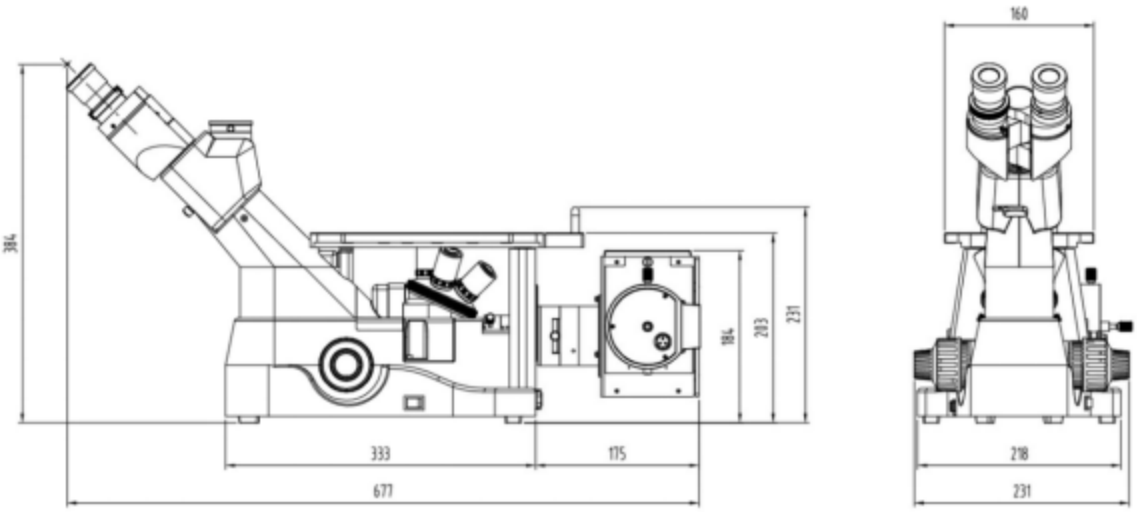
The software provides a fixed-time printing function, and users can realize fixed-time printing of pictures according to the actual printing multiple requirements.

5. Inspection report

Metallographic analysis software system composition:

1. Software program FMIA2021 (U disk);
2. Dongle: USB type + dynamic code verification;
3. Text information: "Instruction Manual" (on the U disk);
4. 0.01mm micrometer ruler.

Size of microscope:



Why choose us!

19 YEARS

Professional focused on testing equipment

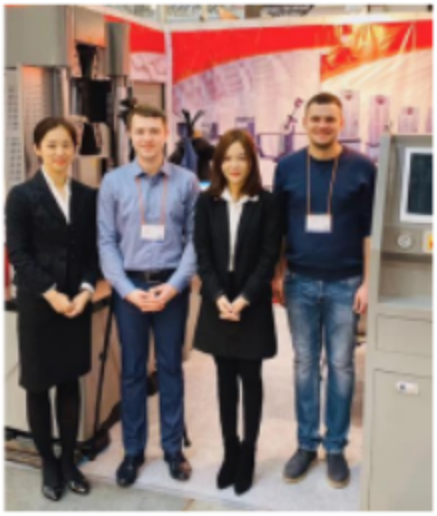
KASON is established in 2003,owns more than 8000 square meters factory.has a professional sales teams, modern enter prise technology center,scientific and technological research and development team.

Machines passed the European CE authentication,American FDA certificate and and ISO 9001.

Products sold to USA, Canada, Australia, Europe, Africa etc,more than 130 countries and supply OEM service for many customers

PROFESSIONAL TEAM

KASON has a professional sales teams, modern enter prise technology center,scientific and technological research and development team.



OUR CERTIFICATE (CE / ISO / SGS)

CE

Our Products

DuandianIndustrial Park ,
Jingshi Road, Jinan City,
Shandong Province, China.

Tel. +86 531 58595086
Fax. +86 531 86113769
Email: admin@jnkason.com

KASON