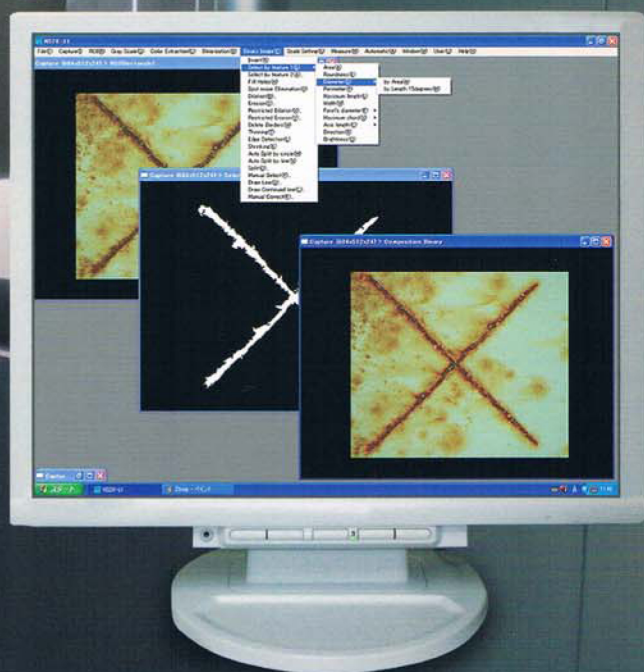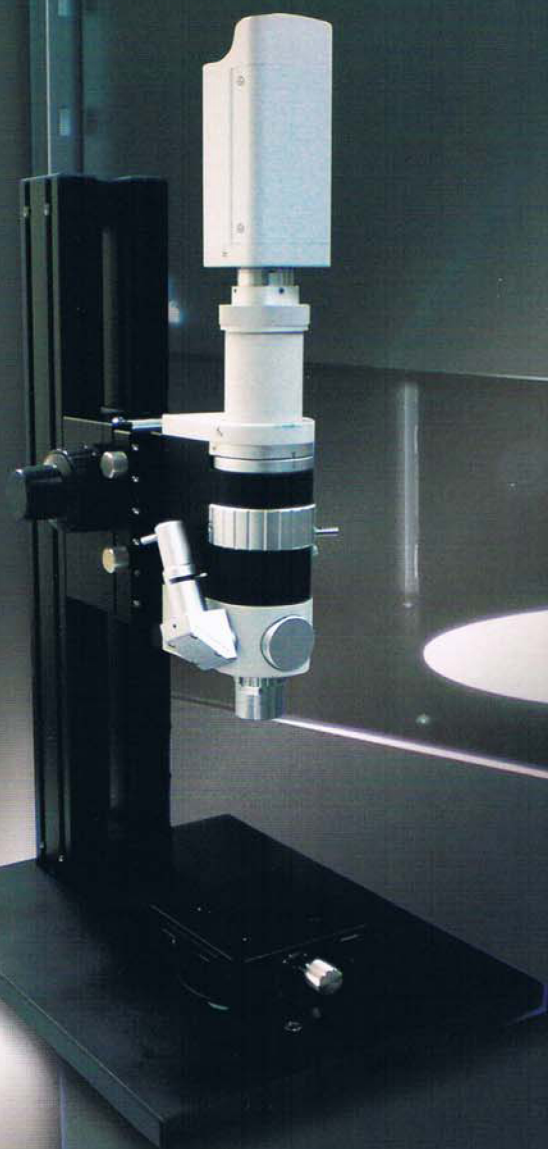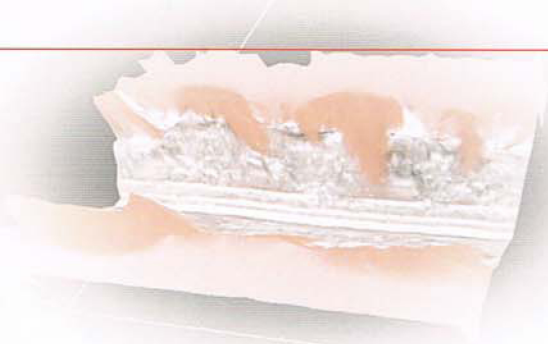# Coating Surface Image Processor

CSA - I
- II
- III

CSA Series

Visual Evaluation method(ISO/TC35・ISO4628 Series) is standardized for a long time　among coating materials, especially in paint field.

But nowadays the method, which uses the image processing technique is becoming to standardized.
This processor will give you repeatability results by easy operations for the paint field's surface observation and quantitative evaluation method. You can use this processor not only for the paint field but for various industry fields.

■Peculiarity■

Special illumination system

When you observe the surface it is indispensable to have a uniformity light without any shadow. The special illumination system of CSA series can light almost parallel to the sample, so you can get a uniformity image without any shadow.

Convenient functions are standard outfit.

You can observe surface/section form of the sample by easy operation.
Moreover you can analyze rapidly and get the correct and repeatability results by using General-Purpose Image Analyzer Soft (**NS2K-Lt**).
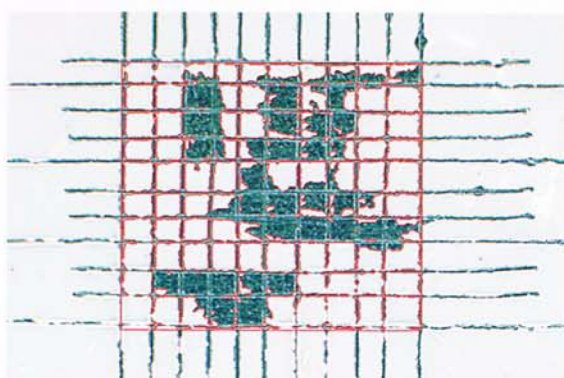

Rust on cracked coating surface	CSA-I

Usual light	Peculiar light

You can observe the condition of the rust on cracked coating surface clearly by peculiar light.
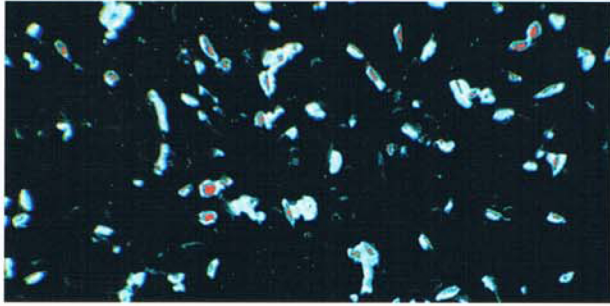
Cross Cut Test	CSA-I

Sample observation of peeling area by Cross Cut Test which estimates an adhesion state of a paint film and the surface of substrate.
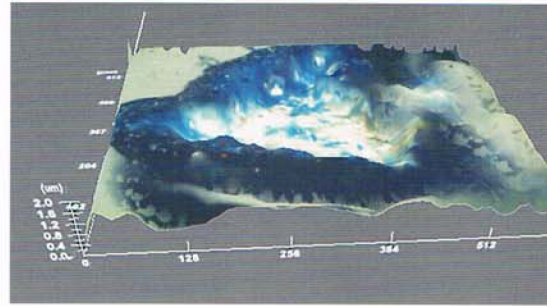
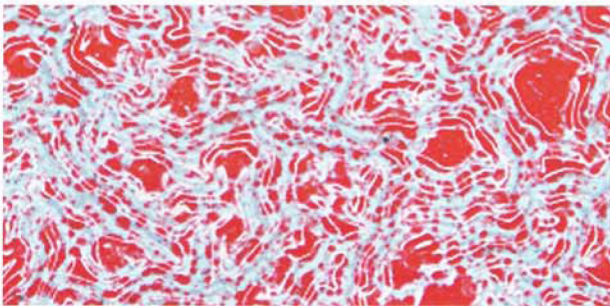The damage of the coating surface by the stone that a running car splashed.

A stereoimage of the damage of coating surface made by collision of the stone that a running car splashed.

Carbonic acid gas in spray booth became catalysis, and from which Gas Checking has made. You can confirm the rumples by resin on surface of Gas Checking.

Phenomenon to be caused by a solvent convection when a solvent evaporates after the painting.

Drop of a fiber

Foreign body dropped on coating surface
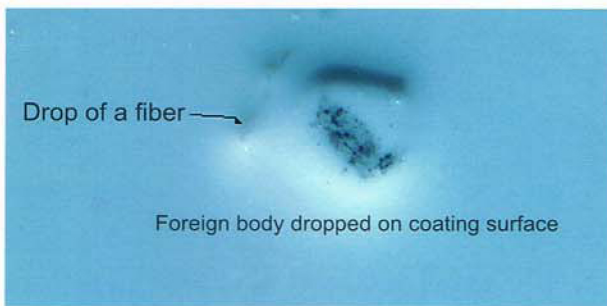
This is the phenomenon on the coating surface by drop of dusts which were in the environment.

This is the sample observation of concrete crystal condition
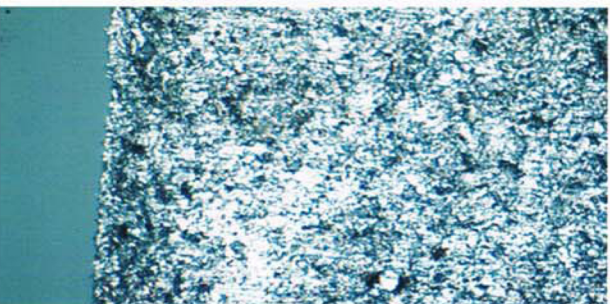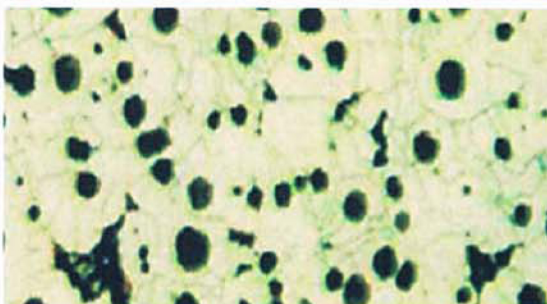
CSA-I
Illumination Unit(Camera Unit)
Control Unit

CSA-III
Illumination Unit(Camera Unit)
Control Unit
Lens Unit for Micro Scope
3D Synthesis Unit

CSA-II
Illumination Unit(Camera Unit)
Control Unit
Lens Unit for Micro Scope

Methods of Coating Surface Image Processor CSA Series

		I	II	III
Camera Unit	Shooting Pixel	2/3-inch color CCD image sensor		
	Shooting Pixel Data (Pixels)	32 Thousand/1.3Million/5.2Million/12Million(Selectable)		
	Electronic Shutter	Auto 1sec.~1/4000sec. (set up at random)		
	Long Charge Shutter	1sec.~100sec. (set up at random)		
	White Balance	Digital Auto/Manual		
Control Unit	Drive	DVD±R/RW CD-R/RW FDD HDD160GB		
	Image Form	Not Compressed: BMP / Compressed: JPEG (Can change the compression rate)		
	Basic Soft	Pre-installed		
	Image Processor	Soft Pre-installed		
	3D Synthesis Soft	×	×	○
Illumination Unit	Measuring Size	0.2mm/90mm (the range of vision) *1		
	Measuring Time	about1~3sec./1sample (Measuring Time will be different by processing.)		
Lens Unit for Micro Scope	Lens Magnification	×	1.5~15times (Optical Magnification) /60~600times (on 17inchs monitor)	
3D Synthesis Unit	Automatically Synthesis Function	×	×	Automatically Synthesis Function・Measuring 3D Profiling system High Color/Scale Indication system Measuring Height system etc.

*1 You can make the measuring size smaller by changing to more highly efficient camera (option)

General-Purpose Image Analyzer Soft **NS2K-Lt**

This Image Analyzer Soft has various functions as input images, improve images, calculate images.It can correspond various uses as measure amounts, granular distribution analysis, measure density.

●This catalog mainly mentioned the data to help you select a model. So there are no cautions how to use. ●There are some soft sold as for Windows XP, and those soft partly can't use with this product. (As capture function soft or stationed soft. ●We ask all the customers to take backups of the data made by this product (images, reflection and documents etc.) with your responsibility.●To improve this product, specifications or appearance might change without notice. ●The magnification in this catalog is counted on 17-inch liquid crystal display●There are a little difference in color between this catalog and real product because of printing effects. ●Names of the products are each company's trademark or a registered trademark.●Microsoft Windows is a registered trademark at the United States of America and other countries.