

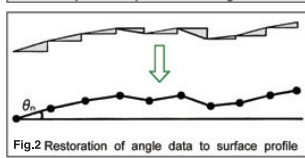
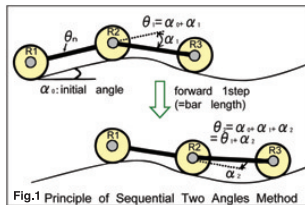
Road Management Imaging System Using IRI Profiler (Contact Type)

IRI Profiler (Contact type)

May be attached to and detached from any car

(1) Method of measurement

With each 20 mm of forward motion, the IRI Profiler measures the positions of its three rollers, taking an indirect measurement of the road surface's longitudinal profile. The connection angles are inversely transformed to give an estimated calculation of gradations in the level of the surface.



(2) measurement vehicle



(3) Measurement Capability

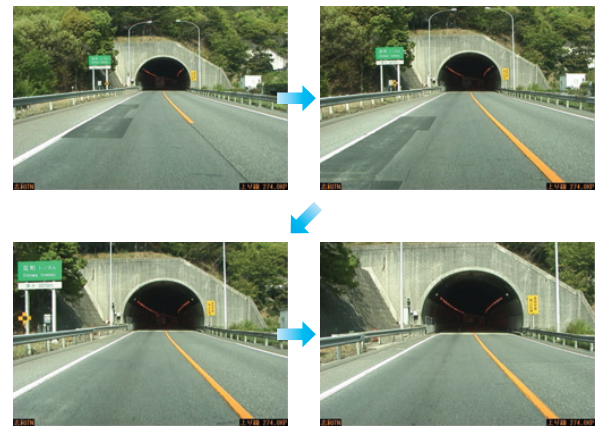
Measurement Mechanism	IRI Profiler	
Performance	1.Type	Contact type with probe rollers (conjugate gradient method)
	2.Interval	Every 20 mm of forward motion
	3.Speed	0-80 km/hr
	4.Accuracy	0-40km/hr : 10mm/100 m 41-80km/hr : 15mm/100m
Maintenance	Measurement device	Replace with probe tire
	Car	No special limitation
Advantages	<ul style="list-style-type: none"> • Measurement possible at any speed. • Can be attached to any car. • Even in rain or snow, measurements are possible on popcorn pavement roads. 	
Disadvantage	<ul style="list-style-type: none"> • No actual record. • Processing of data takes a little longer. 	
General Evaluation	<ul style="list-style-type: none"> • Very convenient, with no operating limits. • Can be operated at a modest cost. • Highly durable, with low maintenance costs. 	

Road Management Imaging (consecutive still photographs)

Images assist managing of road surfaces and conditions, including pavement and joints.

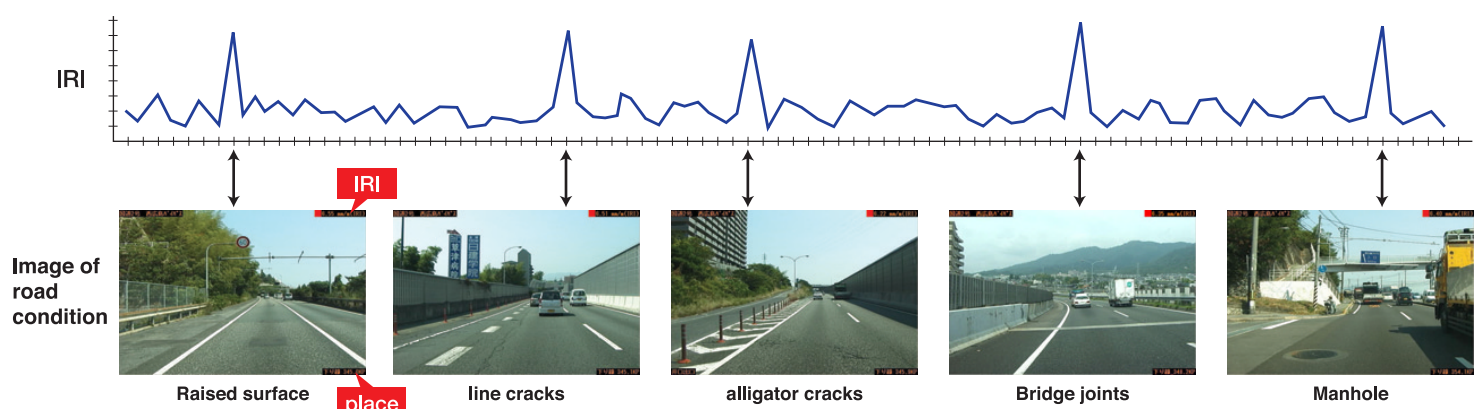
Characteristics

- 1 Photos taken at 10m intervals.
- 2 Indicates km, TN, bridge names, etc.
- 3 Records latitude and longitude.
- 4 Portable using image archives.



The optimum in road management. Even car-ride comfort can be visualized using road management images.

(1) What road management images will show:



(2) Future road management using car-ride comfort measurement images

Drivers continually monitor the roads. For optimum road management, up-to-date road data is crucial. This system allows such needs to be met in real-time.

Application of the system

- Make appropriate road repair plans by identifying causes of road damage.
- Better budget management by including management standards in simulations.
- Use captured data for asset management.
- Evaluate the condition of road fixtures.