BumpRecorder Web

Download data from the map

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BumpRecorder Co., Ltd.

Contents

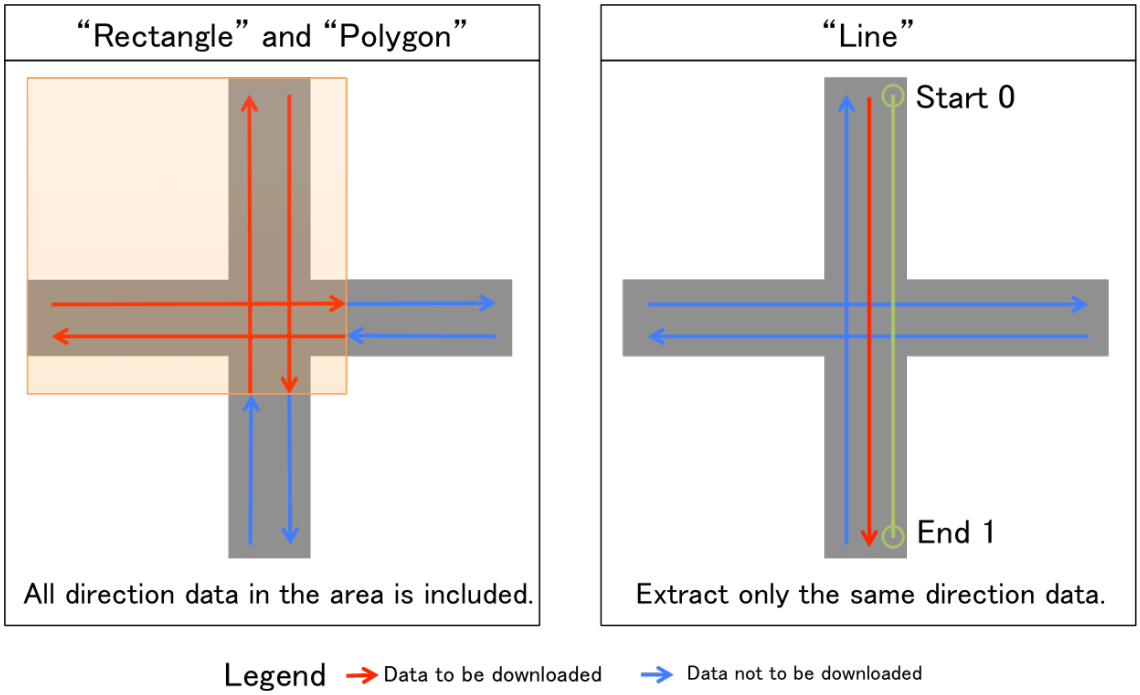
1. Overview

You can download all the data in the area selected on the map. In addition, it is also possible to download statistical data with contour table or graph.

Rectangle :Suitable for a wide range data downloading at once.
Polygon :Suitable for a wide range data downloading without unnecessary data.
Line :Suitable for data downloading with detailed route and drive direction.
And you can also download statistical data.

Different ways of using

When selecting an area with “Rectangle” or “Polygon”, data in the area will be counted regardless of the direction of travel. Therefore, if you don’t want to include another direction data at an intersection, Using “Line” is the best way.



2. Three types of Area selection

Rectangle

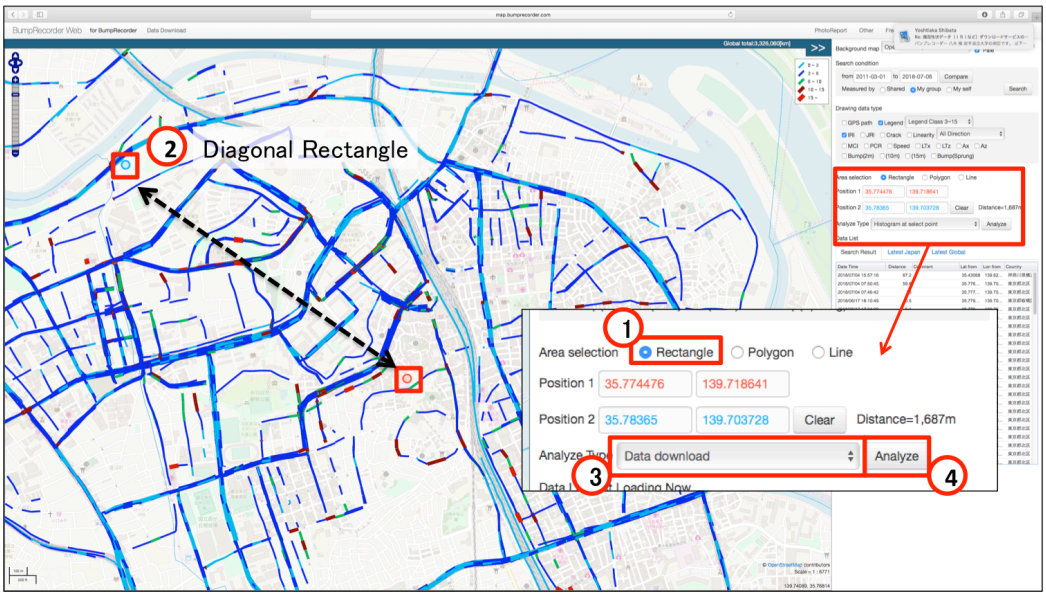
Click two points on the map to select the Rectangle area.

①Select “Rectangle”.

②Click two point on the map. (Click diagonal Rectangle.)

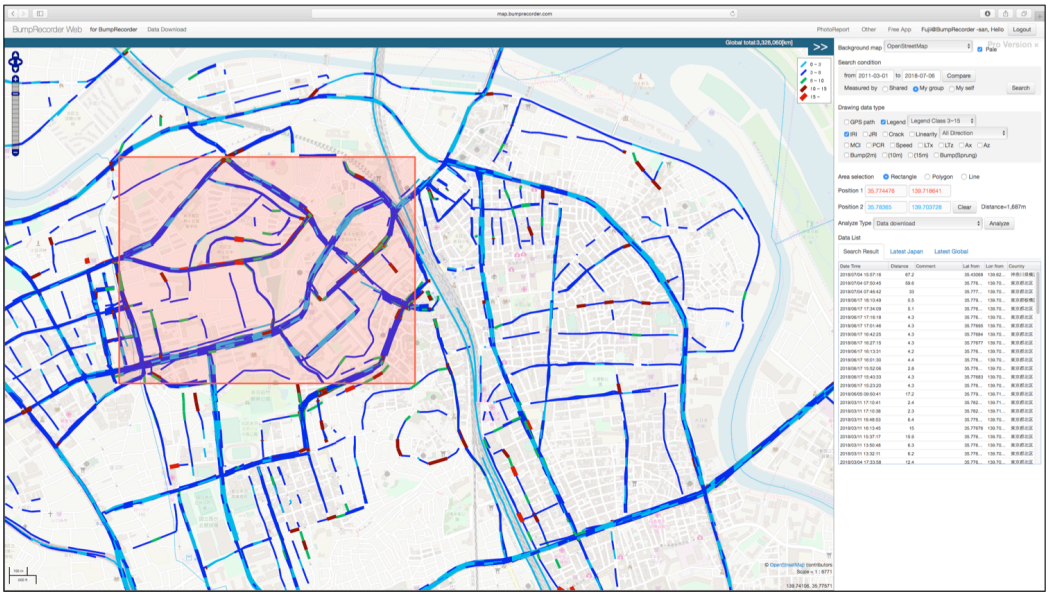
③Select “Data download”

④Click “Analyze” button.



After clicking “Analysis” button, Rectangle area is displayed on the map.

The data in the Rectangle is downloaded automatically.



Polygon

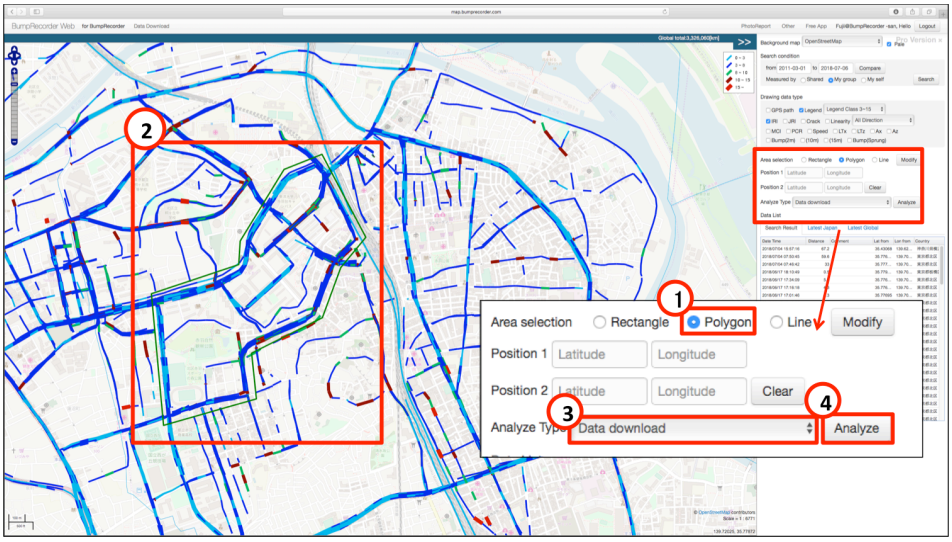
Click multiple points on the map to select the Polygon area.

①Select “Polygon”

②Click multiple times on the map to draw Polygon

③Select “Download data”

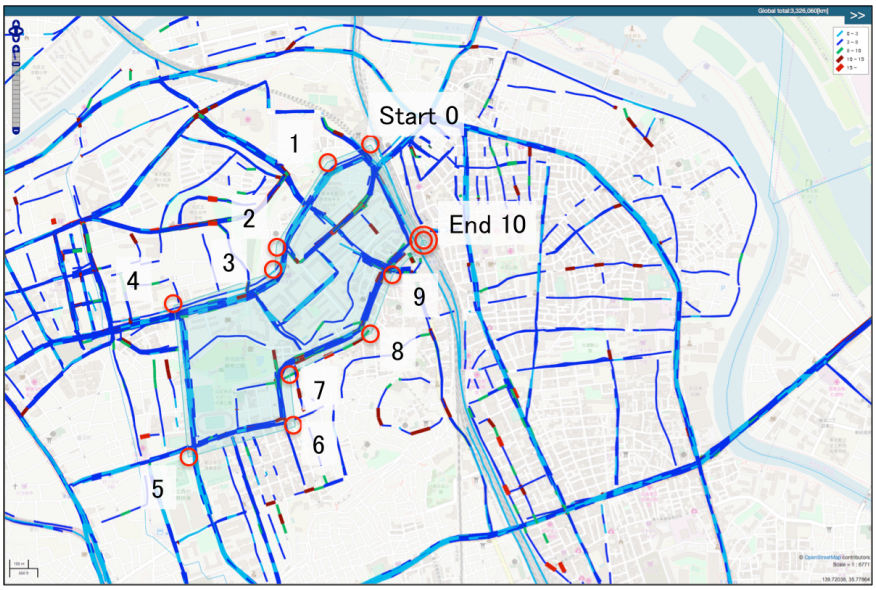
④Click “Analysis” button



After clicking “Analysis” button,

the data in the Polygon is downloaded automatically.

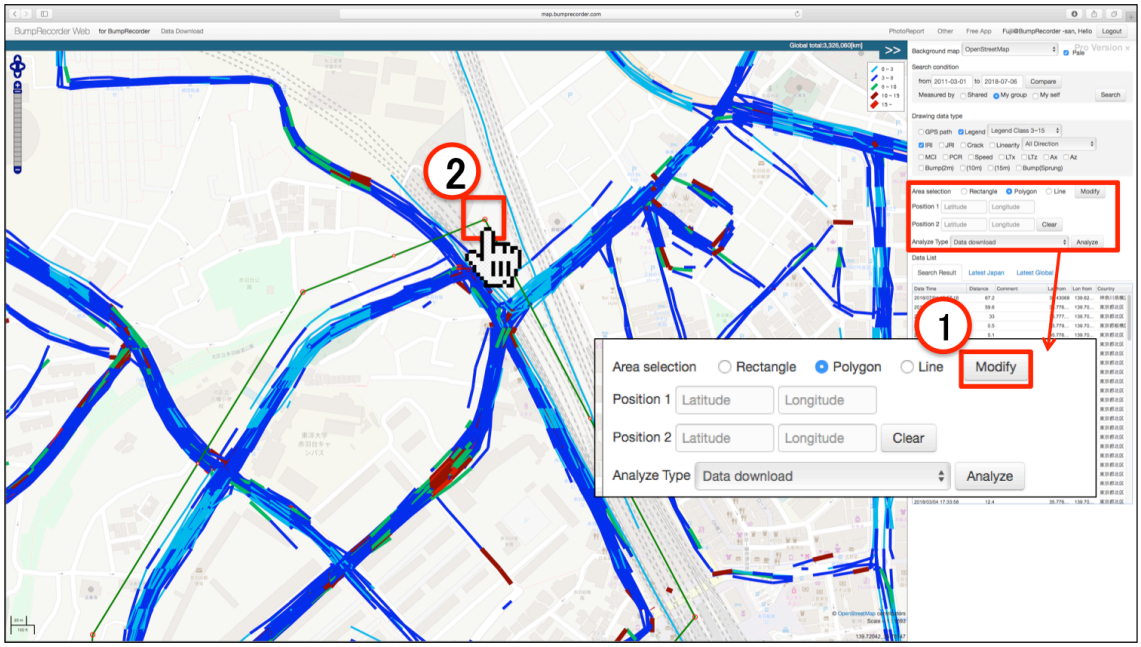
To confirm Polygon area on the map, you have to double-click on the End point.



NOTE. How to modify Polygon.

①Click “Modify” button.

②Drag vertex to move.



Line

Click multiple points on the map to select the Line.

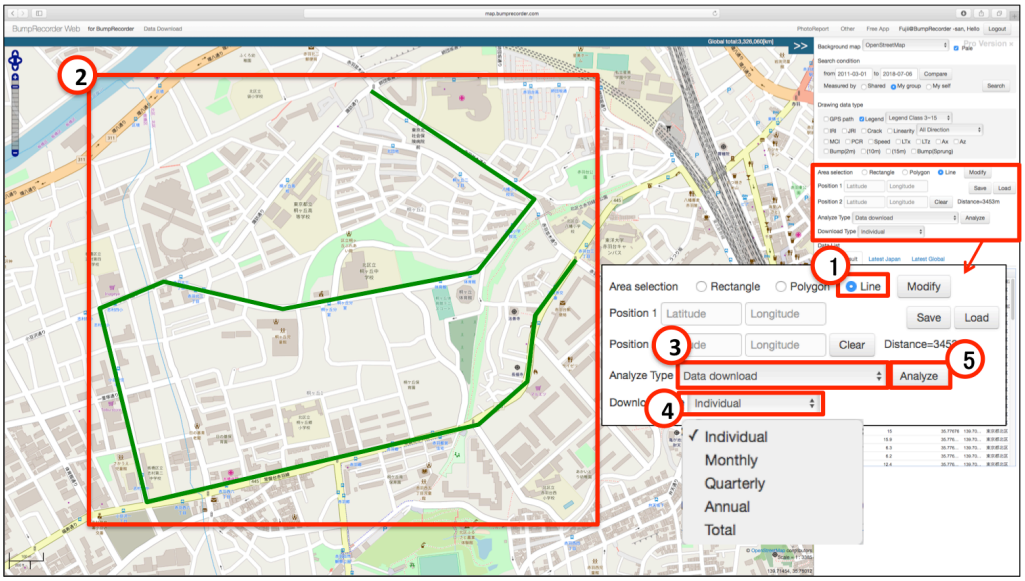
① Select “Line”.

② Click multiple times along the route on the map to draw Line.

③ Select “Download data”.

④ Select from download type.

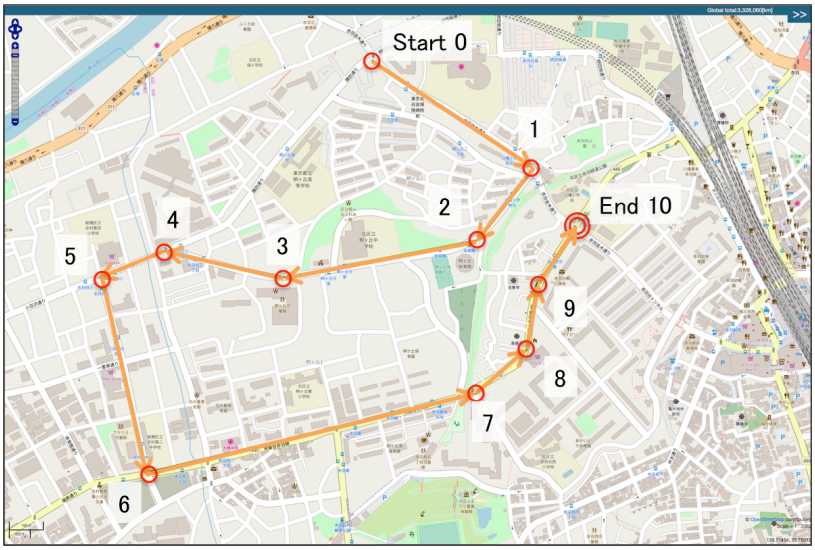
⑤Click “Analysis” button.



After clicking “Analysis” button,

the data in the Line is downloaded automatically.

To confirm Line on the map, you have to double-click on the End point.



NOTE. How to save Line drawn on the map.

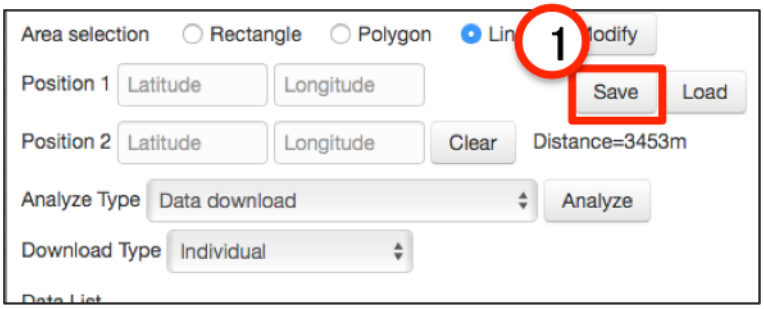
If you save Line, you can draw the same Line on the map again.

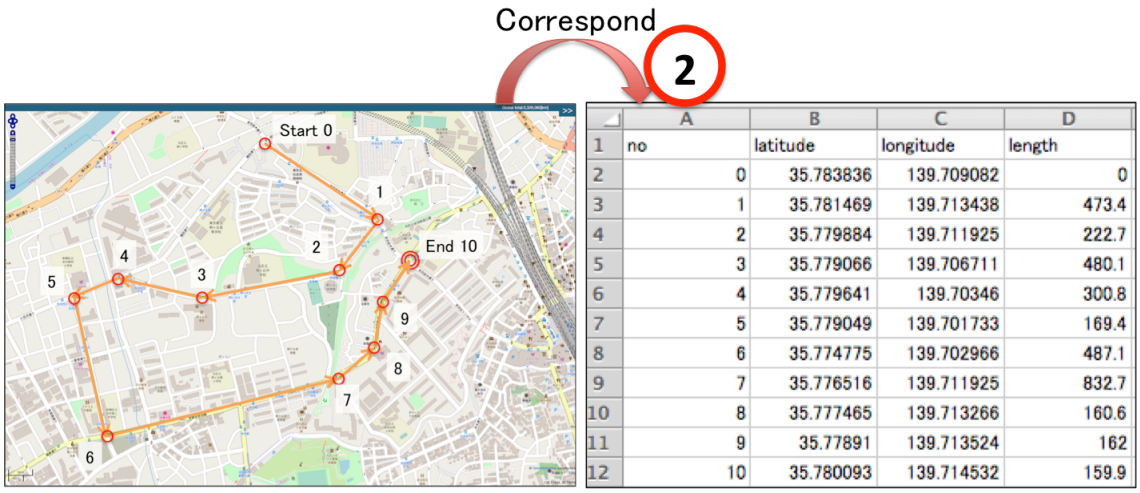
You can use it when you want to continue analyzing on the same route section.

① Click the “Save” button.

② CSV file is automatically downloaded.

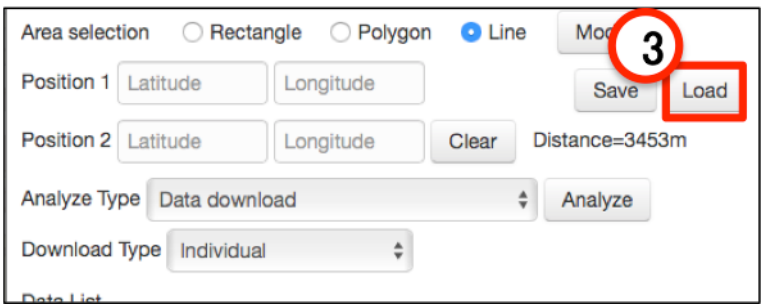
③ Click “Read” button, then select CSV file you’ve downloaded.





	A	B	C	D
1	no	latitude	longitude	length
2	0	35.783836	139.709082	0
3	1	35.781469	139.713438	473.4
4	2	35.779884	139.711925	222.7
5	3	35.779066	139.706711	480.1
6	4	35.779641	139.70346	300.8
7	5	35.779049	139.701733	169.4
8	6	35.774775	139.702966	487.1
9	7	35.776516	139.711925	832.7
10	8	35.777465	139.713266	160.6
11	9	35.77891	139.713524	162
12	10	35.780093	139.714532	159.9

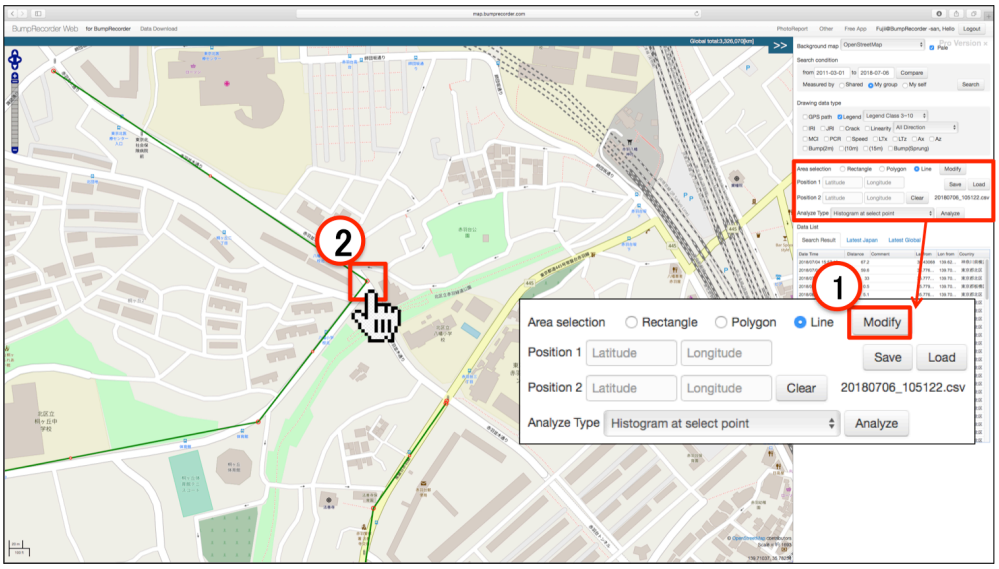
The CSV file records the latitude and longitude of the click point and the distance between points.



NOTE. How to modify Line.

①Click “Modify” button.

②Drag vertex to move.



3. About contents of Download data

The download content differs between “Rectangle” or “Polygon” and “Line”.

Statistics data can be downloaded on "Line".

3-1 Download with “Rectangle” or “Polygon”

The downloaded folder contains three files.

1.Section.txt : The data of index value (IRI, Linearity, Crack, PCR etc.) evaluated for each section

2. BumpIndex.txt: The data of step height under the spring at the specific point. (The maximum depth when applying straight edge to the road surface .)

3. BumpData.txt : The data of step height on the spring at the specific point.

“Section.txt” file-format

user_id	User ID who uploaded the data
datetime	Date and time when the data was measured
devicetime	Time indicated by OS UTC [ms]
meshsize	Mesh size (Size 2, 4, 8, and 16)
latcode	Latitude mesh number
loncode	Longitude mesh number
lat1	The latitude on the Entry side of the evaluation section
lon1	The longitude on the Entry side of the evaluation section
lat2	The latitude on the Exit side of the evaluation section
lon2	The longitude on the Exit side of the evaluation section
l	Section length [m]
speed	Average velocity in section [m/s]
iri	IRI [mm/m]
jri	Flatness σ [mm]
crack	Cracking rate [%]
linearity	Linearity σ [mm]
mci	MCI
pcr	PCR
lt_x	Ride comfort value – left and right direction [db]
lt_z	Ride comfort value – vertical direction [db]

“BumpIndex.txt” file-format

user_id	User ID who uploaded the data
datetime	Date and time when the data was measured
devicetime	Time indicated by OS UTC [ms]
straight_length	Length of straight edge applying road surface (2m, 10, 15m)
latitude	Latitude
longitude	Longitude
bump_height	Bump Height [m] Deepest distance when applying straight edge to road surface

bump_length	Bump Length [m] Distance between the location of deepest bump and contact location of straight edge
bump_width	Bump Width [m] Distance between both contact point of straight edge and road surface.
speed	Average velocity in section [m/s]
lat_from	The latitude on the Entry side of the evaluation section
lon_from	The longitude on the Entry side of the evaluation section
lat_to	The latitude on the Exit side of the evaluation section
lon_to	The longitude on the Exit side of the evaluation section

"BumpData.txt" file-format

user_id	User ID who uploaded the data
datetime	Date and time when the data was measured
devicetime	Time indicated by OS UTC [ms]
latitude	Location of bump (Latitude)
longitude	Location of bump (Longitude)
bumpheight	Bump Height [m] The difference between the top and the bottom of peak of the surrounding road surface.
bumplength	Bump Length [m] Horizontal distance between the top and the bottom of peak of the surrounding road surface.
jerk	The difference between the maximum and the minimum of the vertical acceleration when passing the bump
jerktime	Time difference between observation time of maximum acceleration and minimum acceleration [s]
speed	Moving speed [m/s]
bearing	Movement direction (Bearing angle) North is 0° , East is 90°

3-2 Download with “Line”

The contents to be downloaded are roughly divided into three groups, and five download types are classified.

A. “Individual”

You can download index value (IRI etc.) of all data in Line.

B. “Monthly” / “Quarterly” / “Annual”

You can download statistic data and graphs of index value for each section in Line (in units of monthly, quarterly, and Annual).

C. “Total”

You can download statistic data and graphs of index value for each section in Line (in whole period).

A. Individual

In “Individual”, two files are downloaded.

1. Section.txt : The data of index value (IRI etc.) evaluated for each section.

2. BumpIndex.txt: The data of step height under the spring at the specific point .

“Section.txt” file-format

user_id	User ID who uploaded the data
datetime	Date and time when the data was measured
devicetime	Time indicated by OS UTC[ms]
meshsize	Mesh size(Size 2, 4, 8, and 16)
latcode	Latitude mesh number
loncode	Longitude mesh number
lat1	The latitude on the Entry side of the evaluation section
lon1	The longitude on the Entry side of the evaluation section
lat2	The latitude on the Exit side of the evaluation section
lon2	The longitude on the Exit side of the evaluation section
l	Section length[m]

speed	Average velocity in section[m/s]
iri	IRI[mm/m]
jri	Flatness σ [mm]
crack	Cracking rate[%]
linearity	Linearity σ [mm]
mci	MCI
pcr	PCR
lt_x	Ride comfort value – left and right direction[db]
lt_z	Ride comfort value – vertical direction[db]
dist_from, dist_to	Distance from reference point of route[m]

"BumpIndex.txt" file-format

user_id	User ID who uploaded the data
datetime	Date and time when the data was measured
devicetime	Time indicated by OS UTC [ms]
straight_length	Length of straight edge applying road surface (2m, 10, 15m)
latitude	Latitude
longitude	Longitude
bump_height	Bump Height [m] Deepest distance when applying straight edge to road surface
bump_length	Bump Length [m] Distance between the location of deepest bump and contact location of straight edge
bump_width	Bump Width [m] Distance between both contact point of straight edge and road surface.
speed	Average velocity in section [m/s]
lat_from	The latitude on the Entry side of the evaluation section
lon_from	The longitude on the Entry side of the evaluation section
lat_to	The latitude on the Exit side of the evaluation section
lon_to	The longitude on the Exit side of the evaluation section
dist	Distance from reference point of route [m]

B. “Monthly” / “Quarterly” / “Annual”

In “Monthly”, “Quarterly” or “Annual”, five files are downloaded.

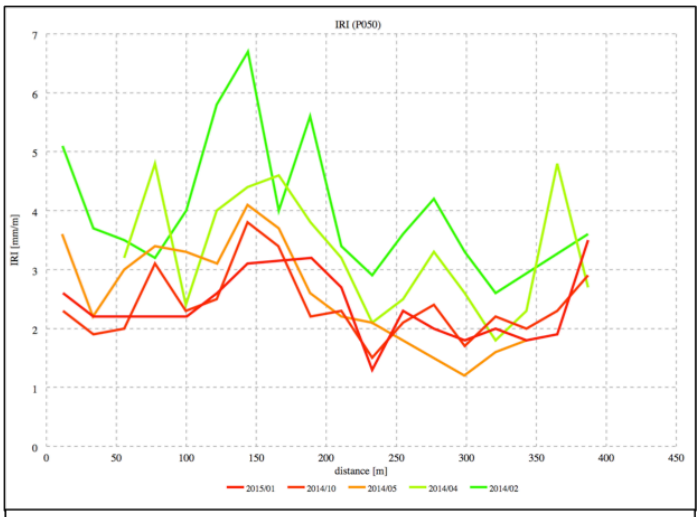
1. “data” folder : Statistical data such as average or median of index value for each section. (txt format)
2. “graph” folder : Distance graph with distance on the horizontal axis, index value on the vertical axis. (svg format)
3. “Contour” folder: The graph with distance on the horizontal axis, the measurement month (quarter, or year) on the vertical axis. The average value of index value is yellow, and twice the average is red. (svg format)
4. “pdf” folder : Cracks and IRI for each section are output in the table. (pdf format)
5. “text” folder : Appearance rate of index value of the whole section. (txt format)

“data” folder file-format

Basic Statistic	meshsize	Mesh size(Size 2, 4, 8, and 16)
	lat1	The latitude on the Entry side of the evaluation section
	lon1	The longitude on the Entry side of the evaluation section
	lat2	The latitude on the Exit side of the evaluation section
	lon2	The longitude on the Exit side of the evaluation section
	l	Section length [m]
	speed	Average velocity in section [m/s]
	no	Serial number (Including missing number)
	dist_from, dist_to	Distance from reference point of route
Index Value	iri	IRI [mm/m]
	jri	Flatness σ [mm]
	crack	Cracking rate [%]
	linearity	Linearity σ [mm]
	mci	MCI
	pcr	PCR
	lt_x	Ride comfort value – left and right direction [db]

	It_z	Ride comfort value – vertical direction [db]
Statistics for each Index	avg	Average
	sd	Standard deviation
	n	The number of data
	min, max	Minimum, Maximum
	p010～p090	Percentile value

"graph" folder file-format

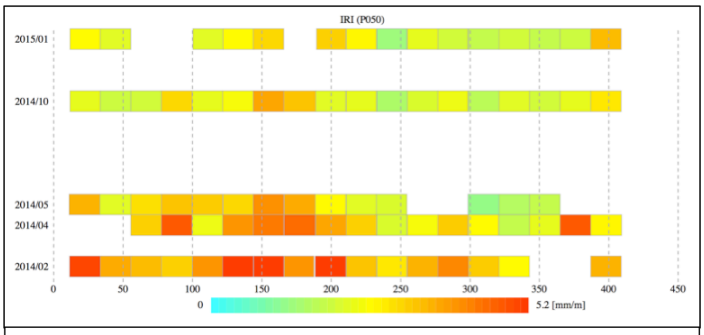


SectionStatisticGraph_iri_p050_2.svg

"graph" contains the following index file.
(IRI, Flatnessσ, Crack rate, Linearityσ, MCI, PCR)

The svg file is displayed by dragging it to the browser.

"contour" folder file-format



SectionStatisticContour_iri_p050_2.svg

"graph" contains the following index file.
(IRI, Flatnessσ, Crack rate, Linearityσ, MCI, PCR)

The svg file is displayed by dragging it to the browser.

“pdf” folder file-format

路線名		管轄		道路幅員(m)(上下線形)		路線延長		点検日	2014年2月1日	点検者	
点検方法		平均ひび割れ(%)		平均わだち掘れ(mm)		平均縦断凹凸(IRI)(mm/m)	3.6	平均パッチング数(箇所)		その他	

区間			施設など		区間距離 (m)	点検年月	ひび割れ (%)	わだち掘れ (mm)	縦断凹凸 (IRI) (mm/m)	パッチング数 (箇所)	交通量 (台/日)	大型車混入率 (%)	舗装計画交通量	設計CBR(%)	舗装構成「使用材料及び厚さ」								施設年月	補修履歴	
自	～	至	位置	名称											表層	厚さ	基層	厚さ	路盤	厚さ	路盤	厚さ		年月	内容
12	～	34			22	2014/02	7		5.1																
34	～	56			22	2014/02	0		3.7																

“text” folder file-format

	A	B	C	D
1	meshsize=2	good	mid	poor
2	201402	17	83	0
3	201404	44	56	0
4	201405	55	45	0

C. “Total”

In “Total”, two files are downloaded.

1. “data” folder : Statistical data such as average or median of index value for each section. (txt format)
2. “pdf” folder : Cracks and IRI for each section are output in the table. (pdf format)

NOTE. About file-format, see page 14.

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