

# POTEKA API

## Interface Specifications

# POTEKA API

URL : <http://api.potekanet.com/>

Resource Hierarchy	Acquired data P:Poteka A:Amedas Ra:Radar	Acquired element	Acquired number of point	Description	Bus
Version				Version No.	
Area				Area	
real-ja				Real data	
rectangle	P, A, Ra	One element	multiple points	Acquisition of all designated data in designated area	GET /v1/area/real/ja/rectangle
Prefecture	For Japan only				
city					
forecast-ja	For Japan only				
rectangle	For Japan only				
prefecture	For Japan only				
city	For Japan only				
point				Point	
real-ja				Real Data	
poteka	P	All	The point to be designated	Acquisition of all designated POTEKA data in designated area	GET /v1/point/real/ja/poteka
amedas	For Japan only				
radar	For Japan only				
camera	C	Picture	The point to be designated	Acquisition of Amedas Camera image	GET /v1/point/real/ja/camera
forecast-ja	For Japan only				
poteka	For Japan only				
amedas	For Japan only				
radar	For Japan only				

## Authorization

In order to use POTEKA API, Header must be added for authorization.

X-POTEKA-Authorization is added on request header and Specify the BASE64-encoded "login name: password" as the value.

X-POTEKA-Authorization: dGVzdHVzZXI6cGFzc3dvcmQ

## Data Acquisition of designated rectangle area

Requesting URL					HTTP Method	
http://api.potekanet.com/v1/area/real/ja/rectangle?[parameter]=[value]...					GET	
Requesting paramter						
No	Items	Parameter name	Type	Required	Default	Description
1	Southwest latitude and longitude	swPoint	string	<input type="radio"/>	-	Designate Southwest latitude and longitude of area desired with decimal number & comma
2	Northeast latitude and longitude	nePoint	string	<input type="radio"/>	-	Designate Northeast latitude and longitude of area desired with decimal number & comma
3	observation element	element	string	<input type="radio"/>	-	Designate observation element with comma. Refer the element to attached sheet.
4	Acquisition start date & time	startDate	string		-	Designate acquisition start date & time of time series data with ISO8601 format(expanded notation)
5	Acquisition end date & time	endDate	string		latest	Designate acquisition end date & time of time series data with ISO8601 format(expanded notation). Input "latest" in order to aquire latest data.
6	Inclusion of POTEKA data	poteka	bool		true	Designate inclusion or non inclusion of POTREKA data to data aquired
7	For Japan only					
8	For Japan only					
9	For Japan only					
Request example						
1	GET /v1/area/real/ja/rectangle?swPoint=36.1769,138.9866&nePoint=36.4369,139.4398&element=temp HTTP/1.1					
2	HOST: example.potekanet.com					
3	X-POTEKA-Authorization: dGVzdHVzZXI6cGFzc3dvcmQ					
4						
5						
Request example(JSON)						
1	GET /v1/area/real/ja/rectangle HTTP/1.1					
2	HOST: example.potekanet.com					
3	X-POTEKA-Authorization: dGVzdHVzZXI6cGFzc3dvcmQ					
4	Content-Type: application/json					
5						
6	{					
7	"swPoint": "36.1769,138.9866",					
8	"nePoint": "36.4369,139.4398",					
9	"element": "temp",					
10	"startDate": "2015-11-01T09:00:00+00:00",					
11	"endDate": "2015-11-					
12	"poteka": true,					
13	"amedas": true,					
14	"radar": true,					
15	"zoomLevel": 12					
16	}					

Response				
No				Description
1	poteka			
2		stationInfo		
3			stationId	Station data
4			stationName	Station ID
5			latitude	Station Name
6			longitude	Latitude
7		element		
8			elementName	Longitude
9			sampling	Each element data
10			dataList	Element name
11				Sampling
12				Time series data list
13				
14			datetime	Data date and time
15			value	Observed value
16			dataQualityFla	Data quality
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				
response example				
1	{			
2	"poteka": [			
3	{			
4	"stationInfo": {			
5	"stationId": 136,			
6	"stationName": "MEISEI",			
7	"latitude": 36.2643,			
8	"longitude": 139.2019			
9	},			
10	"element": [			
11	{			
12	"elementName": "temp",			
13	"sampling": "1min",			
14	"dataList": [			
15	{			
16	"datetime": "2015-11-26T19:30:00+00:00",			
17	"value": 10.4,			
18	"dataQualityFlag": 0			
19	},			
20	{			
21	"datetime": "2015-11-26T19:31:00+00:00",			
22	"value": 10.4,			
23	"dataQualityFlag": 0			
24	}			
25	]			
26	}			
27	]			
28	}			
29	],			

## Data Acquisition of designated POTEKA

Requesting URL					HTTP Method	
http://api.potekanet.com/v1/point/real/ja/poteka?[parameter]=[value]...					GET	
Requesting parameter						
No	Items	Parameter name	Type	Required	Default	Description
1	POTEKA ID	potekaId	int	<input type="radio"/>	-	Designate POTEKA ID with decimal number and comma
2	observation element	element	string	<input type="radio"/>	-	Designate observation element with comma
3	Acquisition start date & time	startDate	string	<input type="checkbox"/>	-	Designate acquisition start date & time of time series data with ISO8601 format (expanded notation)
4	Acquisition end date & time	endDate	string	<input type="checkbox"/>	latest	Designate acquisition end date & time of time series data with ISO8601 format (expanded notation). Input "latest" in order to acquire latest data.
Request example						
1 GET /v1/point/real/ja/poteka?potekaId=235&element=temp HTTP/1.1						
2 HOST: example.potekanet.com						
3 X-POTEKA-Authorization: dGVzdHVzZXI6cGFzc3dvcmQ						
4						
5						
) Request example (JSON)						
1 GET /v1/area/point/ja/poteka HTTP/1.1						
2 HOST: example.potekanet.com						
3 X-POTEKA-Authorization: dGVzdHVzZXI6cGFzc3dvcmQ						
4 Content-Type: application/json						
5						
6 {						
7     "potekaId": "235",						
8     "element": "temp",						
9     "startDate": "2015-11-01T09:00:00+00:00",						
10    "endDate": "2015-11-01T12:00:00+00:00"						
11 }						
12						
Response						
No					Description	
1	poteka				POTEKA Data	
2	stationInfo				Station data	
3	stationId				Station ID	
4	stationName				Station Name	
5	latitude				Latitude	
6	longitude				Longitude	
7	element				Each element data	
8	elementName				Element name	
9	sampling				Sampling	
10	dataList				Time series data list	
11	datetime				Data date and time (UTC)	
12	value				Observed value	
13	dataQualityFlag				Data quality	
14						
Response example						
1	{					
2	"poteka": [					
3	{					
4	"stationInfo": {					
5	"stationId": 136,					
6	"stationName": "明星電気",					
7	"latitude": 36.2643,					
8	"longitude": 139.2019					
9	},					
10	"element": [					
11	{					
12	"elementName": "temp",					
13	"sampling": "1min",					
14	"dataList": [					
15	{					
16	"datetime": "2015-11-26T19:30:00+00:00",					
17	"value": 10.4,					
18	"dataQualityFlag": 0					
19	},					
20	],					
21	{					
22	"datetime": "2015-11-26T19:31:00+00:00",					
23	"value": 10.4,					
24	"dataQualityFlag": 0					
25	}					
26	]					
27	}					
28	]					
29	}					
30						
31						

Data acquisition of Camara (Designated camara for POTEKA only)

Requesting URL						HTTP Method
http://api.potekanet.com/v1/point/real/ja/camera?[parameter]=[value]...						GET
Requesting paramter						
No	Items	Parameter name	Type	Required	Default	Description
1	POTEKA ID	potekaId	int	<input type="radio"/>	-	Designate POTEKA ID with decimal number and comma
2	Acquisition date & time	datetime	string	<input type="checkbox"/>	latest	Designate acquisition start date & time of time series data with UTC ISO8601 format(expanded notation). Input "latest" in order to aquire latest data.
Regeust example						
1 GET /v1/point/real/ja/camera?potekaId=235&datetime=2015-11-26T19:30:00+00:00 HTTP/1.1						
2 HOST: example.potekanet.com						
3 X-POTEKA-Authorization: dGVzdHVzZXI6cGFzc3dvcmQ						
4						
5						
Request example(JSON)						
1 GET /v1/area/point/ja/camera HTTP/1.1						
2 HOST: example.potekanet.com						
3 X-POTEKA-Authorization: dGVzdHVzZXI6cGFzc3dvcmQ						
4 Content-Type: application/json						
5						
6{						
7     "potekaId": "235",						
8     "datetime": "2015-11-26T19:30:00+00:00"						
9}						
Response						
No						Description
						binary data
Response example						
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
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## Attach sheet-Observation element Indication

Observatoin element (Real value)	English indication	Unit	Data interval	Observation range	remarks	
Temperatuer	temp	° C	1min.	-99.9 ~99.9		
Humidity	humi	%RH	1min.	○~100		
Pressure	press l	hPa	1min.	0.0~9999.9		
Sea level pressure	press s	hPa	1min.	0.0~9999.9		
Wind direction	wind d	deg°	1min.	0~360	10 分平均風向 10min. average	
Wind speed	wind s	m/s	1min.	0.0~99.9	10 分平均風速 10min. average	
Wind direction at Max. Instantenous wind speed	wind max d	deg°	1min.	0~360		
Max. Instantenous wind speed	wind max s	m/s	1min.	0.0~99.9		
Solar Radiation	Solar	W/m	1min.	0~9999		
Rain Detection	rain	-	1min.	true	Including Rain defection	
				false	Excluding Rain detection	
One Min. precipitation	rain m	mm	1min.	0.0~999.9		
One hour precipitation	rain f	mm	1min.	0.0~999.9		
Rainfall Intensity	rain i	mm/h	1min.	0.0~99.9		
Contenous rainfall	rain c	mm	1min.	0.0~9999.9		
Effective rainfall	rain e	mm	1min.	0.0~9999.9		
Wet Bulb Globe Temperature	wbgt	C	1min.	0.0~99.9		
Weather	weather	-	1min.	sunny	Sunny	Sunny/rainy judgement is not available in night time since solar radiation is not obtained.
				cloudy	Cloudy	
				rainy	Rainy	
				night	Night	
Weather radar image	-	-	10min.	-	Tile image	
Gemera Image	-	-	10min.	-	Installed staion only	
Snow accumulation	snow c	cm	1min.	0.0~999.9	Installed staion only	
Snowfall	snow f	cm	1min.	0.0~999.9	Installed staion only	
Water level	water level	m	1min.	-9.9999~9.9999	Installed staion only	
Water level change	water level change	e-	1min.	0: (no change) 1: (Increase) 2: (Decrease)	Installed staion only	
Road surface temperature	temp rs	C	1min.	-99.9~99.9	Installed staion only	
PM2.5	PM25	jug/m	1min.	0~999	Installed staion only	
Option	option	-	1min.	-	Installed staion only	

## Error response

Response		
No		Description
1	status	Status code
2	error Code	Error code
3	message	Error message
Response example		
1	{	
2	"status": 400,	
3	"errorCode": 401,	
4	"message": "not found"	
5	}	

