

create time: 2022-07-08

# User API v0.7.8

## POST /v1.0/api/user/login

POST /v1.0/api/user/login

Body request parameter

```
{
  "username": "username",
  "password": "password",
  "service": "https://url.com"
}
```

### request parameter

name	location	type	necessary	description
body	body	object	no	none
» username	body	string	yes	Username
» password	body	string	yes	Password
» service	body	string	yes	The address of the logon request

return example

### return result

status code	status code message	description	data mode
200	<a href="#">OK</a>	success	Inline

### return structure

## GET /v1.0/api/user/logout

GET /v1.0/api/user/logout

### request parameter

name	location	type	description
email	query	string	Email
rzpj	header	string	Certificate

return example

## return result

status code	status code message	description	data mode
200	<a href="#">OK</a>	success	Inline

## return structure

### GET /v1.0/api/user

GET /v1.0/api/user

## request parameter

name	location	type	description
rzpj	header	string	Certificate

return example

success

```
{
  "id": "f703a998-d0fc-45d7-8d49-f468ffd913de",
  "username": "apidocs",
  "email": "876012439@qq.com",
  "firstName": "Time",
  "lastName": "Deep",
  "status": "NORMAL",
  "createTime": 1650274106201,
  "updateTime": 1650274106201
}
```

## return result

status code	status code message	description	data mode
200	<a href="#">OK</a>	success	Inline

## return structure

status code **200**

name	type	constraint	description
» id	string	none	UID
» username	string	none	Username
» email	string	none	Email
» firstName	string	none	First name
» lastName	string	none	Last name
» status	string	none	Status
» createTime	integer	none	Created
» updateTime	integer	none	Update

## POST /v1.0/user/register

POST /v1.0/user/register

Body request parameter

```
{
  "username": "lgq_test",
  "password": "Aaaaaaa1",
  "confirmPassword": "Aaaaaaa1",
  "firstName": "li",
  "lastName": "gaoqiang",
  "email": "2085860762@qq.com",
  "captcha": "927624",
  "phone": "15397182393",
  "country": "China",
  "affiliation": "Education",
  "organization": "Zhejiang university",
  "userType": "Public User",
  "industry": "Physical Oceanography"
}
```

**request parameter**

name	location	type	necessary	description
body	body	object	no	none
» username	body	string	yes	none
» password	body	string	yes	none
» confirmPassword	body	string	yes	none
» firstName	body	string	yes	none
» lastName	body	string	yes	none
» email	body	string	yes	none
» captcha	body	string	yes	none
» affiliation	body	string	yes	none
» organization	body	string	yes	none
» userType	body	string	yes	none
» industry	body	string	yes	none

return example

## return result

status code	status code message	description	data mode
200	<a href="#">OK</a>	success	Inline

## return structure

## POST /v1.0/user/mail/captcha

POST /v1.0/user/mail/captcha

Body request parameter

```
{
  "email": "2757412961@qq.com"
}
```

## request parameter

name	location	type	necessary	description
rzpj	header	string	no	none
body	body	object	no	none
» email	body	string	yes	none

return example

## return result

status code	status code message	description	data mode
200	<a href="#">OK</a>	success	Inline

## return structure

# Data Hub API v0.7.8

## DataAtom

### GET /v1.0/api/data-central/atom/{uid}

GET /v1.0/api/data-central/atom/{uid}

Query DataAtom by uid

## request parameter

name	location	type	necessary	description
uid	path	string	yes	DataAtom UID
rzpj	header	string	no	Certificate

return example

http success

```
{
  "code": 200,
  "message": "success",
  "data": {
    "id": 1,
    "uid": "7fd6e867-54a3-46f3-9869-290097de74ce",
    "name": "http_reconstruct_coastline",
    "dataType": "JSON",
    "atomType": "HTTP",
    "userId": "ADMIN",
    "privilege": "PUBLIC",
    "status": "HEALTHY",
    "isOfficial": 1,
    "browseGraph": "http://ip:port/static/reconstruct-coastlines.png",
    "keyword": "paleogeography",
    "description": "description",
    "taskId": null,
    "boundaryWKT": null,
    "coordinateReference": null,
    "projection": null,
  }
}
```

```
"space": {
  "type": null,
  "resolution": "500m",
  "elevation": null,
  "extent": {
    "minX": -180,
    "maxX": 180,
    "minY": -90,
    "maxY": 90
  },
  "geoIdentifier": null
},
"temporal": {
  "geologicTime": null,
  "geologicAge": null,
  "base": 760,
  "top": 0,
  "gtsVersion": null
},
"fields": [
  {
    "type": "FLOAT",
    "fieldName": "time",
    "description": "time"
  },
  {
    "type": "VARCHAR",
    "fieldName": "model",
    "description": "models of reconstruct: ['SCOTese&WRIGHT2018',
'SETON2012', 'PEHRSSON2015', 'DOMEIER2014', 'MATTHEWS2016_pmag_ref',
'MATTHEWS2016_mantle_ref', 'MATTHEWS2016', 'VH_VDM', 'GOLONKA', 'RODINIA2013',
'PALEOMAP', 'MULLER2016']"
  }
],
"intellectualProp": null,
"license": null,
"discipline": "/",
"authorName": null,
"authorMail": null,
"doi": null,
"associatedResource": null,
"associatedResourceUrl": null,
"createTime": 1648795083357,
"updateTime": 1648795457805,
"httpDpMeta": {
  "dpAddress": "14F3D2D7A4021000",
  "security": {
    "useTls": false
  },
  "transfer": {
    "endpoint": [
      "ip:port/reconstruct/coastlines"
    ],
    "protocol": "http"
  }
},
```

```
    "httpRoute": {
      "contentType": "application/json",
      "method": "GET"
    }
  }
}
```

## return result

status code	status code message	description	data mode
200	<a href="#">OK</a>	http success	Inline

## return structure

status code **200**

name	type	constraint	description
» code	integer	none	Status Code
» message	string	none	Status Information
» data	object	none	DataAtom Information
»» id	integer	none	DataAtom ID
»» uid	string	none	DataAtom UID
»» name	string	none	Unit name
»» dataType	string	none	Data type,Value = FILE, TABLE, JSON, PICTURE..
»» atomType	string	none	Metadata type,Value = LAYER_SERVICE,HTTP,JDBC,MYSQL,POSTGRESQL
»» userId	string	none	none
»» privilege	string	none	AccessPermission,Value= public, private
»» status	string	none	Access Status,Value = SETTING,HEALTHY, UNHEALTHY
»» isOfficial	integer	none	Is it official
»» browseGraph	string	none	Browse Graph
»» keyword	string	none	Keyword
»» description	string	none	Description
»» taskId	null	none	Taskid
»» boundaryWKT	null	none	The range of the query space, which is returned in WKT format.
»» coordinateReference	null	none	coordinate Reference
»» projection	null	none	Projection coordinate system
»» space	object	none	Spatial Information
»»» type	null	none	Type
»»» resolution	string	none	Spatial resolution
»»» elevation	null	none	Elevation
»»» extent	object	none	extent
»»»» minX	integer	none	Minimum x
»»»» maxX	integer	none	Maximum x
»»»» minY	integer	none	Minimum y
»»»» maxY	integer	none	Maximum y
»»» geolIdentifier	null	none	GeolIdentifier
»» temporal	object	none	Time
»»» geologicTime	null	none	Geologic time, e.g, Quaternary
»»» geologicAge	null	none	Geological age, e.g,1, 100 to 200.2
»»» base	integer	none	The earliest possible time point, e.g,150.3
»»» top	integer	none	The latest possible time t, e.g,10.2
»»» gtsVersion	null	none	Geological Age version, e.g,INTERNATIONAL CHRONOSTRATIGRAPHIC CHART v2021/05
»» fields	[object]	none	Field Information
»»» type	string	none	Field type, Value = INT, FLOAT, DOUBLE, BOOLEAN, COLUMNNAME, GEOMETRY, VARCHAR
»»» fieldName	string	none	Fieldname
»»» description	string	none	Description
»» intellectualProp	null	none	IntellectualProp
»» license	null	none	license
»» discipline	string	none	Discipline
»» authorName	null	none	Author name



name	type	constraint	description
»» authorMail	null	none	Author email
»» doi	null	none	The unique identifier of the data object
»» associatedResource	null	none	Associated resources
»» associatedResourceUrl	null	none	Link
»» createTime	integer	none	Created
»» updateTime	integer	none	Update Time
»» httpDpMeta	object	none	Data center information
»»» dpAddress	string	none	DpAddress
»»» security	object	none	Encrypted information
»»»» useTls	boolean	none	TLS encryption
»»» transfer	object	none	Transfer information
»»»» endpoint	[string]	none	Endpoint
»»»» protocol	string	none	Data source protocol
»»» httpRoute	object	none	HTTP Route
»»»» contentType	string	none	Content Type
»»»» method	string	none	Request Mode

## POST /v1.0/api/data-central/atom/list/user

POST /v1.0/api/data-central/atom/list/user

Enter a field to obtain the list of DataAtom belonging to the user

### request parameter

name	location	type	necessary	description
page	query	string	no	In the previous page, if you want to display the first page, use 0
pageSize	query	string	no	Number of Entries displayed per page
spatialWkt	query	string	no	Enter wkt as the spatial query and return the boundaryWKT. If you do not specify this parameter, you will not be added to the spatial query.
top	query	string	no	Maximum time range for querying data
base	query	string	no	Minimum time range for querying data
datasetId	query	string	no	Dataset ID
keyword	query	string	no	Keyword
startTimestamp	query	string	no	Start time
endTimestamp	query	string	no	End time
status	query	string	no	Access Status, Value = [SETTING, HEALTHY, UNHEALTHY, LAYERED]
atomType	query	string	no	Atom Type, Value = [BASE, JDBC, HTTP, LAYER_SERVICE, POSTGRESQL, MYSQL]
dataType	query	string	no	DataType, Value = FILE, TABLE, JSON, PICTURE, VECTOR, RASTER
rzpj	header	string	yes	Certificate

return example

success

```
{
  "code": 200,
  "message": "success",
  "data": {
    "total": 1,
    "list": [
      {
        "uid": "cac31bc3-71ea-4fcd-a825-8ef291a37d9e",
        "name": "OneSediment Detrital Zicron Data",
        "dataType": "TABLE",
        "atomType": "JDBC",
        "privilege": "PRIVATE",
        "status": "HEALTHY",
        "isofficial": 0,
        "browseGraph": "dde.jpg",
        "keyword": "Detrital Zicron, Sediment",
        "description": "Detrital Zicron Data From OneSediment",
        "coordinateReference": "WGS84",
        "projection": "Equirectangular",
        "authorName": "DDE",
        "authorMail": "DDE@dde.org",

```

```

    "doi": "",
    "associatedResource": "The Global Detrital Zircon Database:
Quantifying the Timing and Rate of Crustal Growth",
    "associatedResourceURL": "http://hdl.handle.net/10919/27785",
    "space": {
      "type": "TextTable",
      "resolution": "",
      "extent": {
        "minX": -180,
        "maxX": 180,
        "minY": 90,
        "maxY": -90
      }
    },
    "temporal": {
      "geologicTime": "",
      "geologicAge": "",
      "gtsVersion": "International 2016 chart",
      "base": 750,
      "top": 0
    },
    "fields": [
      {
        "fieldName": "ref_no",
        "type": "VARCHAR",
        "description": "reference number of zircon detrital"
      },
      {
        "fieldName": "lead_author",
        "type": "VARCHAR",
        "description": "lead author of reference paper"
      }
    ],
    "httpDpMeta": {
      "transfer": {
        "protocol": "http",
        "endpoint": [
          "ip:port/reconstruct/coastlines"
        ]
      },
      "security": {
        "useTls": false
      },
      "httpRoute": {
        "contentType": "application/json",
        "method": "GET"
      }
    }
  }
]
}

```

## return result

status code	status code message	description	data mode
200	<a href="#">OK</a>	success	Inline

## return structure

status code **200**

name	type	constraint	description
» code	integer	none	Status Code
» message	string	none	Status Information
» data	object	none	DataAtom Information
»» id	integer	none	DataAtom ID
»» uid	string	none	DataAtom UID
»» name	string	none	Unit name
»» dataType	string	none	Data type,Value = FILE, TABLE, JSON, PICTURE..
»» atomType	string	none	Metadata type,Value = LAYER_SERVICE,HTTP,JDBC,MYSQL,POSTGRESQL
»» userId	string	none	Userid
»» privilege	string	none	AccessPermission,Value= public, private
»» status	string	none	Access Status,Value = SETTING,HEALTHY, UNHEALTHY
»» isOfficial	integer	none	Is it official
»» browseGraph	string	none	Browse Graph
»» keyword	string	none	Keyword
»» description	string	none	Description
»» taskId	null	none	Taskid
»» boundaryWKT	null	none	The range of the query space, which is returned in WKT format.
»» coordinateReference	null	none	coordinate Reference
»» projection	null	none	Projection coordinate system
»» space	object	none	Spatial Information
»»» type	null	none	Type
»»» resolution	string	none	Spatial resolution
»»» elevation	null	none	Elevation
»»» extent	object	none	extent
»»»» minX	integer	none	Minimum x
»»»» maxX	integer	none	Maximum x
»»»» minY	integer	none	Minimum y
»»»» maxY	integer	none	Maximum y
»»» geolIdentifier	null	none	GeolIdentifier
»» temporal	object	none	Time
»»» geologicTime	null	none	Geologic time, e.g, Quaternary
»»» geologicAge	null	none	Geological age, e.g,1, 100 to 200.2
»»» base	integer	none	The earliest possible time point, e.g,150.3
»»» top	integer	none	The latest possible time t, e.g,10.2
»»» gtsVersion	null	none	Geological Age version, e.g,INTERNATIONAL CHRONOSTRATIGRAPHIC CHART v2021/05
»» fields	[object]	none	Field Information
»»» type	string	none	Field type, Value = INT, FLOAT, DOUBLE, BOOLEAN, COLUMNNAME, GEOMETRY, VARCHAR
»»» fieldName	string	none	Fieldname
»»» description	string	none	Description
»» intellectualProp	null	none	IntellectualProp
»» license	null	none	license
»» discipline	string	none	Discipline
»» authorName	null	none	Author name

name	type	constraint	description
»» authorMail	null	none	Author email
»» doi	null	none	The unique identifier of the data object
»» associatedResource	null	none	Associated resources
»» associatedResourceUrl	null	none	Link
»» createTime	integer	none	Created
»» updateTime	integer	none	Update Time
»» httpDpMeta	object	none	Data center information
»»» dpAddress	string	none	DpAddress
»»» security	object	none	Encrypted information
»»»» useTls	boolean	none	TLS encryption
»»» transfer	object	none	Transfer information
»»»» endpoint	[string]	none	Endpoint
»»»» protocol	string	none	Data source protocol
»»» httpRoute	object	none	HTTP Route
»»»» contentType	string	none	Content Type
»»»» method	string	none	Request Mode

## POST /v1.0/api/data-central/atom/list/public

POST /v1.0/api/data-central/atom/list/public

Obtains a list of public DataAtom

### request parameter

name	location	type	necessary	description
page	query	string	no	In the previous page, if you want to display the first page, use 0
pageSize	query	string	no	Number of Entries displayed per page
spatialWkt	query	string	no	Enter wkt as the spatial query and return the boundaryWKT. If you do not specify this parameter, you will not be added to the spatial query.
top	query	string	no	Maximum time range for querying data
base	query	string	no	Minimum time range for querying data
datasetId	query	string	no	Dataset ID
keyword	query	string	no	Keyword
startTimestamp	query	string	no	Start time
endTimestamp	query	string	no	End time
status	query	string	no	[SETTING, HEALTHY, UNHEALTHY, LAYERED]
path	query	string	no	Directory path
atomType	query	string	no	Atom Type,Value= [BASE, JDBC, HTTP, LAYER_SERVICE, POSTGRESQL, MYSQL]
dataType	query	string	no	DataType, Value = FILE, TABLE, JSON, PICTURE, VECTOR, RASTER
rzpj	header	string	no	Certificate

return example

success

```
{
  "code": 200,
  "message": "success",
  "content": {
    "total": 2,
    "dataAtoms": [
      {
        "id": 1,
        "uid": "77cc1c2f-2da2-464c-8aed-83c955dcf18f",
        "name": "layer",
        "dataType": "TABLE",
        "atomType": "LAYER_SERVICE",
        "userId": "ADMIN",
        "privilege": "PUBLIC",
        "status": "HEALTHY",
        "isOfficial": 1,
        "browseGraph": "dde.jpg",
        "keyword": "dde",
        "taskId": 0,

```

```
"coordinateReference": null,
"projection": null,
"space": {
  "type": null,
  "resolution": "500m",
  "elevation": null,
  "extent": {
    "minX": 0,
    "maxX": 90,
    "minY": 0,
    "maxY": 50
  },
  "geoIdentifier": null
},
"temporal": {
  "geologicTime": "Neoproterozoic and Phanerozoic",
  "geologicAge": "None",
  "base": 150,
  "top": 10,
  "gtsVersion": "International 2016 chart"
},
"fields": [
  {
    "type": "VARCHAR",
    "fieldName": "name",
    "description": "null"
  }
],
"createTime": 1646922764937,
"updateTime": 1646922764937
},
{
  "id": 2,
  "uid": "65bf0a0d-a04a-466a-86a7-d70e391e82c3",
  "name": "jdbc",
  "dataType": "TABLE",
  "atomType": "JDBC",
  "userId": "ADMIN",
  "privilege": "PUBLIC",
  "status": "HEALTHY",
  "isOfficial": 1,
  "browseGraph": "dde.jpg",
  "keyword": "dde",
  "taskId": 0,
  "coordinateReference": null,
  "projection": null,
  "space": {
    "type": null,
    "resolution": "500m",
    "elevation": null,
    "extent": {
      "minX": 0,
      "maxX": 90,
      "minY": 0,
      "maxY": 50
    }
  }
}
```



```
    },
    "geoIdentifier": null
  },
  "temporal": {
    "geologicTime": "Neoproterozoic and Phanerozoic",
    "geologicAge": "None",
    "base": 150,
    "top": 10,
    "gtsVersion": "International 2016 chart"
  },
  "fields": [
    {
      "type": "VARCHAR",
      "fieldName": "name",
      "description": "null"
    }
  ],
  "createTime": 1646921724886,
  "updateTime": 1646922066159
}
]
}
}
```

## return result

status code	status code message	description	data mode
200	<a href="#">OK</a>	success	Inline

## return structure

status code **200**

name	type	constraint	description
» code	integer	none	Status Code
» message	string	none	Status Information
» content	object	none	Data Content
»» total	integer	none	Data Records
»» dataAtoms	[object]	none	Metadata information
»»» id	integer	none	DataAtom ID
»»» uid	string	none	DataAtom UID
»»» name	string	none	Unit name
»»» dataType	string	none	Data type,Value = FILE, TABLE, JSON, PICTURE..
»»» atomType	string	none	Metadata type,Value = LAYER_SERVICE,HTTP,JDBC,MYSQL,POSTGRESQL
»»» userId	string	none	Userid
»»» privilege	string	none	AccessPermission,Value= public, private
»»» status	string	none	Access Status,Value = SETTING,HEALTHY, UNHEALTHY
»»» isOfficial	integer	none	is it Official
»»» browseGraph	string	none	Browse Graph
»»» keyword	string	none	Keyword
»»» taskId	integer	none	TaskId
»»» coordinateReference	null	none	coordinate Reference
»»» projection	null	none	Projection coordinate system
»»» space	object	none	Spatial Information
»»»» type	null	none	Type
»»»» resolution	string	none	Spatial resolution
»»»» elevation	null	none	Elevation
»»»» extent	object	none	extent
»»»» minX	integer	none	Minimum x
»»»» maxX	integer	none	Maximum x
»»»» minY	integer	none	Minimum y
»»»» maxY	integer	none	Maximum y
»»»» geolIdentifier	null	none	GeolIdentifier
»»» temporal	object	none	Time
»»»» geologicTime	string	none	Geologic time, e.g, Quaternary
»»»» geologicAge	string	none	Geological age, e.g,1, 100 to 200.2
»»»» base	integer	none	The earliest possible time point, e.g,150.3
»»»» top	integer	none	The latest possible time t, e.g,10.2
»»»» gtsVersion	string	none	Geological Age version, e.g,INTERNATIONAL CHRONOSTRATIGRAPHIC CHART v2021/05
»»» fields	[object]	none	Field Information
»»»» type	string	none	Field type, Value = INT, FLOAT, DOUBLE, BOOLEAN, COLUMNNAME, GEOMETRY, VARCHAR
»»»» fieldName	string	none	Fieldname
»»»» description	string	none	Description
»»» createTime	integer	none	Created
»»» updateTime	integer	none	Update time

# POST /v1.0/api/data-central/atom/raster/layer

POST /v1.0/api/data-central/atom/raster/layer

Enter Fields to publish raster data with one click

## request parameter

name	location	type	necessary	description
path	query	string	yes	Data directory
atomName	query	string	no	Atom name
rzpj	header	string	yes	Certificate
keyword	query	string	no	Keyword

return example

success

```
{
  "code": 200,
  "message": "success",
  "data": {
    "uid": "0ffda1a7-e984-4145-9b1b-981162982162"
  }
}
```

## return result

status code	status code message	description	data mode
200	<a href="#">OK</a>	success	Inline

## return structure

status code **200**

name	type	constraint	description
» code	integer	none	Status Code
» message	string	none	Status Information
» data	object	none	DataAtom Information
»» uid	string	none	DataAtom UID

## POST /v1.0/api/data-central/atom/http

POST /v1.0/api/data-central/atom/http

Enter a field to add an http DataAtom

Body request parameter

```
{
  "name": "Deep Marine Drilling Data",
  "dataType": "JSON",
  "atomType": "HTTP",
  "privilege": "PUBLIC",
  "status": "HEALTHY",
  "description": "Spatital Distribution of International Ocean Drilling Data",
  "browseGraph": "http://ip:port/static/reconstruct-coastlines.png",
  "keyword": "IODP, Drilling, Spatial Distribution",
  "space": {
    "extent": {
      "minX": -180.0,
      "maxX": 180.0,
      "minY": -90.0,
      "maxY": 90.0
    }
  },
  "temporal": {
    "base": 0.0,
    "top": 0.0
  },
  "fields": [
    {
      "fieldName": "time",
      "type": "FLOAT",
      "description": "time"
    },
    {
      "fieldName": "model",
      "type": "VARCHAR",
      "description": "models of reconstruct: ['SCOTese&WRIGHT2018',
'SETON2012', 'PEHRSSON2015', 'DOMEIER2014', 'MATTHEWS2016_pmag_ref',
'MATTHEWS2016_mantle_ref', 'MATTHEWS2016', 'VH_VDM', 'GOLONKA', 'RODINIA2013',
'PALEOMAP', 'MULLER2016']"
    }
  ],
  "httpDpMeta": {
    "transfer": {
      "protocol": "http",
      "endpoint": [
        "ip/static/holes.json"
      ]
    },
    "security": {
      "useTls": false
    },
    "httpRoute": {
      "contentType": "application/json",
```

```
    "method": "GET"  
  }  
}
```

**request parameter**

name	location	type	necessary	description
rzpj	header	string	yes	Certificate
body	body	object	no	none
» name	body	string	yes	Unit name
» dataType	body	string	no	Data type,Value = FILE, TABLE, JSON, PICTURE..
» atomType	body	string	yes	Metadata type,Value = LAYER_SERVICE,HTTP,JDBC,MYSQL,POSTGRESQL
» userId	body	string	yes	UserId
» privilege	body	string	yes	AccessPermission,Value= public, private
» status	body	string	yes	Access Status,Value = SETTING,HEALTHY, UNHEALTHY
» browseGraph	body	string	yes	Browse Graph
» keyword	body	string	yes	Keyword
» description	body	string	yes	Description
» taskId	body	null	yes	TaskId
» boundaryWKT	body	null	yes	The range of the query space, which is returned in WKT format
» coordinateReference	body	null	yes	Coordinate Reference
» projection	body	null	yes	Projection coordinate system
» space	body	object	yes	Spatial Information
»» type	body	null	yes	Type
»» resolution	body	string	yes	Spatial resolution
»» elevation	body	null	yes	Elevation
»» extent	body	object	yes	Extent
»»» minX	body	integer	yes	Minimum x
»»» maxX	body	integer	yes	Maximum x
»»» minY	body	integer	yes	Minimum y
»»» maxY	body	integer	yes	Maximum y
»» geolIdentifier	body	null	yes	GeolIdentifier
» temporal	body	object	yes	Time
»» geologicTime	body	null	yes	Geologic time, e.g. Quaternary
»» geologicAge	body	null	yes	Geological age, e.g.1, 100 to 200.2
»» base	body	integer	yes	The earliest possible time point, e.g.150.3
»» top	body	integer	yes	The latest possible time point, e.g.10.2
»» gtsVersion	body	null	yes	Geological Age version, e.g.INTERNATIONAL CHRONOSTRATIGRAPHIC CHART v2021/05
» fields	body	[object]	yes	Field Information
»» type	body	string	yes	Field type, Value = INT, FLOAT, DOUBLE, BOOLEAN, COLUMNNAME, GEOMETRY, VARCHAR
»» fieldName	body	string	yes	Fieldname
»» description	body	string	yes	Description
» intellectualProp	body	null	yes	IntellectualProp
» license	body	null	yes	license
» discipline	body	string	yes	Discipline
» authorName	body	null	yes	Author name
» authorMail	body	null	yes	Author email
» doi	body	null	yes	The unique identifier of the data object
» associatedResource	body	null	yes	Associated resources
» associatedResourceUrl	body	null	yes	Link
» createTime	body	integer	yes	Created
» updateTime	body	integer	yes	Update Time
» httpDpMeta	body	object	yes	Data center information
»» dpAddress	body	string	yes	dpAddress
»» security	body	object	yes	Encrypted information
»»» useTls	body	boolean	yes	TLS encryption
»» transfer	body	object	yes	Transfer information
»»» endpoint	body	[string]	yes	Endpoint
»»» protocol	body	string	yes	Data source protocol

name	location	type	necessary	description
» httpRoute	body	object	yes	HTTP Route
»» contentType	body	string	yes	Content Type
»»» method	body	string	yes	Request Mode

return example

success

```
{
  "code": 200,
  "message": "success",
  "data": {
    "uid": "c5e58d08-a5cf-4590-b26c-8cc0e1431d4a"
  }
}
```

### return result

status code	status code message	description	data mode
200	<a href="#">OK</a>	success	Inline

### return structure

status code **200**

name	type	constraint	description
» code	integer	none	Status Code
» message	string	none	Status Information
» data	object	none	DataAtom Information
»» uid	string	none	DataAtom UID

## POST /v1.0/api/data-central/atom/layer

POST /v1.0/api/data-central/atom/layer

Enter a field to add layerService DataAtom

Body request parameter

```
{
  "name": "OneSediment Detrital Zicron Data",
  "dataType": "TABLE",
  "atomType": "JDBC",
  "privilege": "PRIVATE",
  "status": "HEALTHY",
  "browseGraph": "dde.jpg",
  "keyword": "Detrital Zicron, Sediment",
  "description": "Detrital Zicron Data From OneSediment",
}
```

```

"coordinateReference": "WGS84",
"projection": "Equiangular",
"authorName": "DDE",
"authorMail": "DDE@dde.com",
"doi": "",
"associatedResource": "The Global Detrital Zircon Database: Quantifying the
Timing and Rate of Crustal Growth",
"associatedResourceURL": "http://hdl.handle.net/10919/27785",
"space": {
  "type": "TextTable",
  "resolution": "",
  "extent": {
    "minX": -180,
    "maxX": 180,
    "minY": 90,
    "maxY": -90
  }
},
"temporal": {
  "geologicTime": "",
  "geologicAge": "",
  "gtsVersion": "International",
  "base": 750,
  "top": 0
},
"fields": [
  {
    "fieldName": "ref_no",
    "type": "VARCHAR",
    "description": "reference number of zircon detrital"
  },
  {
    "fieldName": "lead_author",
    "type": "VARCHAR",
    "description": "lead author of reference paper"
  }
],
"layerServiceInfo": {
  "type": "VECTOR",
  "method": "GEOJSON",
  "sourceLayer": "layer",
  "imageUrl": "dde.jpg",
  "coordinateReference": "EPSG:4326",
  "url":
"/geoserver/gwc/service/tms/1.0.0/ADMIN:fx_vector_hangzhou7@EPSG:4326@png/{z}/{x}
/{reverseY}.png",
  "vectorLayerItem": {
    "geoJsonType": "POLYGON"
  }
}
}

```



# request parameter

name	location	type	necessary	description
rzpj	header	string	yes	Certificate
body	body	object	no	none
» name	body	string	yes	Unit name
» dataType	body	string	yes	Data type,Value = FILE, TABLE, JSON, PICTURE.
» atomType	body	string	yes	Metadata type,Value = LAYER_SERVICE,HTTP,JDBC,MYSQL,POSTGRESQL
» userId	body	string	yes	UserID
» privilege	body	string	yes	AccessPermission,Value= public, private
» status	body	string	yes	Access Status,Value = SETTING,HEALTHY, UNHEALTHY
» isOfficial	body	integer	yes	Is it official
» browseGraph	body	null	yes	Browse Graph
» keyword	body	string	yes	Keyword
» description	body	null	yes	Description
» taskId	body	null	yes	TaskID
» boundaryWKT	body	null	yes	The range of the query space, which is returned in WKT format.
» coordinateReference	body	null	yes	coordinate Reference
» projection	body	null	yes	Projection coordinate system
» space	body	object	yes	Spatial Information
»» type	body	null	yes	Type
»» resolution	body	null	yes	Spatial resolution
»» elevation	body	null	yes	Elevation
»» extent	body	object	yes	extent
»»» minX	body	integer	yes	Minimum x
»»» maxX	body	integer	yes	Maximum x
»»» minY	body	integer	yes	Minimum y
»»» maxY	body	integer	yes	Maximum y
» geolIdentifier	body	null	yes	GeolIdentifier
» temporal	body	object	yes	Time
»» geologicTime	body	null	yes	Geologic time, e.g. Quaternary
»» geologicAge	body	null	yes	Geological age, e.g.1, 100 to 200.2
»» base	body	integer	yes	The earliest possible time point, e.g.150.3
»» top	body	integer	yes	The latest possible time point, e.g.10.2
»» gtsVersion	body	string	yes	Geological Age version, e.g.INTERNATIONAL CHRONOSTRATIGRAPHIC CHART v2021/05
» fields	body	[string]	yes	Field Information
» intellectualProp	body	null	yes	IntellectualProp
» license	body	null	yes	license
» discipline	body	string	yes	Discipline
» authorName	body	null	yes	Author name
» authorMail	body	null	yes	Author email
» doi	body	null	yes	The unique identifier of the data object
» associatedResource	body	null	yes	Associated resources
» associatedResourceUrl	body	null	yes	Link
» createTime	body	integer	yes	Created
» updateTime	body	integer	yes	Update Time
» layerServiceInfo	body	object	yes	Layer Service information
»» type	body	string	yes	Layer type, Value = VECTOR, TMS, TDTILES, NC, ELASTICSEARCH
»» method	body	string	yes	Layer Service, Value = COG, WMS, WMTS, ARCGIS, TMS, TDT, AMAP, GEOJSON, TDTILES, NC, PBF
»» renderOptions	body	null	yes	Rendering
»» sourceLayer	body	string	yes	The real layer name, Default value: name
»» imageUrl	body	string	yes	BrowseGraph URL
»» url	body	string	yes	Layer access unified locator
»» tmsLegend	body	null	yes	For tms, you can select this field to record the legend type, color, and name
»» coordinateArr	body	null	yes	none
»» geojsonType	body	null	yes	Geojson Type, e.g. POINT,MULTIPOINT,LINestring,MULTILINestring,POLYGON,MULTIPOLYGON,GEOMETRYCOLLECTION
»» fields	body	null	yes	Fields
»» valueRange	body	null	yes	ValueRange
»» offset	body	null	yes	Offset

return example

success

```
{
  "code": 200,
  "message": "success",
  "data": {
    "uid": "587c669d-5605-4ecb-af82-0ad2e6dcc869"
  }
}
```

## return result

status code	status code message	description	data mode
200	<a href="#">OK</a>	success	Inline

## return structure

status code **200**

name	type	constraint	description
» code	integer	none	Status Code
» message	string	none	Status Information
» data	object	none	DataAtom Information
»» uid	string	none	DataAtom UID

## POST /v1.0/api/data-central/atom/jdbc

POST /v1.0/api/data-central/atom/jdbc

Enter a field to add a JDBC DataAtom

Body request parameter

```
{
  "name": "OneSediment Detrital Zircon Data",
  "dataType": "TABLE",
  "atomType": "JDBC",
  "privilege": "PRIVATE",
  "status": "HEALTHY",
  "browseGraph": "dde.jpg",
  "keyword": "Detrital Zircon, Sediment",
  "description": "Detrital Zircon Data From OneSediment",
  "coordinateReference": "WGS84",
  "projection": "Equiarectangular",
  "authorName": "DDE",
  "authorMail": "DDE@dde.com",
  "doi": "",
  "associatedResource": "The Global Detrital Zircon Database: Quantifying the
Timing and Rate of Crustal Growth",
  "associatedResourceUrl": "http://hdl.handle.net/10919/27785",
  "space": {
    "type": "TextTable",
    "resolution": "",
    "extent": {
      "minX": -180,
      "maxX": 180,
      "minY": 90,
      "maxY": -90
    }
  }
},
```

```

"temporal": {
  "geologicTime": "",
  "geologicAge": "",
  "gtsversion": "International",
  "base": 750,
  "top": 0
},
"fields": [
  {
    "fieldName": "ref_no",
    "type": "VARCHAR",
    "description": "reference number of zicron detrital"
  },
  {
    "fieldName": "lead_author",
    "type": "VARCHAR",
    "description": "lead author of reference paper"
  }
],
"jdbcDpMeta": {
  "transfer": {
    "endpoint": [
      "112.124.238.115:25432"
    ],
    "protocol": "database"
  },
  "security": {
    "useTls": false
  },
  "jdbcRoute": {
    "databaseKind": "postgresql",
    "databaseName": "OneSediment",
    "version": "12.0",
    "password": "OneSediment_admin",
    "username": "OneSediment_admin",
    "options": "characterEncoding=utf8&serverTimezone=UTC"
  }
},
"tableName": "test"
}

```

## request parameter

name	location	type	necessary	description
rzpj	header	string	yes	Certificate
body	body	object	no	none
» name	body	string	yes	Unit name
» dataType	body	string	yes	Data type, Value = FILE, TABLE, JSON, PICTURE
» vectorType	body	string	yes	Vector type, Value = POINT, MULTIPOINT, LINESTRING, MULTILINESTRING, POLYGON, MULTIPOLYGON, GEOMETRYCOLLECTION
» atomType	body	string	yes	Metadata type, Value = LAYER_SERVICE, HTTP, JDBC, MYSQL, POSTGRESQL
» privilege	body	string	yes	AccessPermission, Value= public, private
» status	body	string	yes	Access Status, Value = SETTING, HEALTHY, UNHEALTHY
» isOfficial	body	integer	yes	Is it official
» browseGraph	body	string	yes	Browse Graph
» keyword	body	string	yes	Keyword
» description	body	string	yes	Description
» coordinateReference	body	string	yes	coordinate Reference
» projection	body	string	yes	Projection coordinate system
» authorName	body	string	yes	Author name
» authorMail	body	string	yes	Author email
» doi	body	string	yes	The unique identifier of the data object
» associatedResource	body	string	yes	Associated resources
» associatedResourceUrl	body	string	yes	Link
» space	body	object	yes	Spatial Information
»» type	body	string	yes	Type
»» resolution	body	string	yes	Spatial resolution
»» extent	body	object	yes	extent
»»» minX	body	integer	yes	Minimum x
»»» maxX	body	integer	yes	Maximum x
»»» minY	body	integer	yes	Minimum y
»»» maxY	body	integer	yes	Maximum y
» temporal	body	object	yes	Time
»» geologicTime	body	string	yes	Geologic time, e.g. Quaternary
»» geologicAge	body	string	yes	Geological age, e.g.1, 100 to 200.2
»» gtsVersion	body	string	yes	Geological Age version, e.g.INTERNATIONAL CHRONOSTRATIGRAPHIC CHART v2021/05
»» base	body	integer	yes	The earliest possible time point, e.g.150.3
»» top	body	integer	yes	The latest possible time point, e.g.10.2
» fields	body	[string]	yes	Field Information
» jdbcDpMeta	body	object	yes	JDBC protocol meta
»» transfer	body	object	yes	Transfer information
»»» endpoint	body	[string]	yes	Endpoint
»»» protocol	body	string	yes	Data source protocol
» security	body	object	yes	Encrypted information
»»» useTls	body	boolean	yes	TLS encryption
» jdbcRoute	body	object	yes	JDBC Route
»»» databaseKind	body	string	yes	Database type
»»» databaseName	body	string	yes	Database name
»»» version	body	string	yes	Version
»»» password	body	string	yes	Password
»»» username	body	string	yes	Username
»»» options	body	string	yes	Options, character encoding, and database server time zone
» tableName	body	string	yes	Database table name

return example

success

```
{
  "code": 200,
  "message": "success",
  "data": {
    "uid": "2421200a-293e-4146-ad82-c1472cc43d10"
  }
}
```

## return result

status code	status code message	description	data mode
200	<a href="#">OK</a>	success	Inline

## return structure

status code **200**

name	type	constraint	description
» code	integer	none	Status Code
» message	string	none	Status Information
» data	object	none	DataAtom Information
»» uid	string	none	DataAtom UID

## POST /v1.0/api/data-central/atom/file

POST /v1.0/api/data-central/atom/file

Fill in the field and add a DataAtom of file type

Body request parameter

```
{
  "name": "File OneSediment Detrital Zircon Data",
  "dataType": "TABLE",
  "atomType": "JDBC",
  "privilege": "PRIVATE",
  "status": "HEALTHY",
  "isofficial": 0,
  "browseGraph": "wlq.jpg",
  "keyword": "Detrital Zircon, Sediment",
  "description": "Detrital Zircon Data From OneSediment",
  "coordinateReference": "WGS84",
  "projection": "Equiangular",
  "authorName": "Hu Xiumian",
  "authorMail": "huxm@nju.edu.cn",
  "doi": "",
  "associatedResource": "The Global Detrital Zircon Database: Quantifying the
Timing and Rate of Crustal Growth",
  "associatedResourceURL": "http://hdl.handle.net/10919/27785",
```

```

"space": {
  "type": "TextTable",
  "resolution": "",
  "extent": {
    "minx": -180,
    "maxx": 180,
    "miny": 90,
    "maxy": -90
  }
},
"temporal": {
  "geologicTime": "",
  "geologicAge": "",
  "gtsVersion": "International",
  "base": 750,
  "top": 0
},
"fields": [
  {
    "fieldName": "ref_no",
    "type": "VARCHAR",
    "description": "reference number of zicron detrital"
  },
  {
    "fieldName": "lead_author",
    "type": "VARCHAR",
    "description": "lead author of reference paper"
  }
],
"filePath": "/vi/test/file",
"endpoint": "xafgasdf",
"accessKey": "2435",
"secretKey": "987654"
}

```

**request parameter**

name	location	type	necessary	description
rzpj	header	string	Yes	Certificate
body	body	object	No	none
» name	body	string	Yes	none
» dataType	body	string	Yes	Currently there are FILE, TABLE, JSON, PICTURE and other types
» privilege	body	string	Yes	There are currently two types of PUBLIC and PRIVATE
» status	body	string	Yes	Currently there are SETTING, HEALTHY, UNHEALTHY
» isOfficial	body	integer	Yes	A value of 1 is official data, 0 is unofficial data
» browseGraph	body	string	No	none
» keyword	body	string	No	none
» description	body	string	No	none
» coordinateReference	body	string	No	none
» projection	body	string	No	none
» authorName	body	string	No	none
» authorMail	body	string	No	none
» doi	body	string	No	none
» associatedResource	body	string	No	none
» associatedResourceURL	body	string	No	none
» space	body	object	No	none
»» type	body	string	No	none
»» resolution	body	string	No	none
»» elevation	body	number	No	none
»» extent	body	object	Yes	none
»»» minX	body	integer	Yes	none
»»» maxX	body	integer	Yes	none
»»» minY	body	integer	Yes	none
»»» maxY	body	integer	Yes	none
»» geolIdentifier	body	string	No	none
» temporal	body	object	No	none
»» geologicTime	body	string	No	Quaternary
»» geologicAge	body	string	No	1, 100 to 200.2
»» base	body	number	Yes	Such as 150.3.
»» top	body	number	Yes	Such as 10.2.
»» gtsVersion	body	string	No	INTERNATIONAL CHRONOSTRATIGRAPHIC CHART v2021/05
» fields	body	[object]	Yes	none
»» type	body	string	No	INT, FLOAT, DOUBLE, BOOLEAN, COLUMNNAME, GEOMETRY, VARCHAR
»» fieldName	body	string	No	none
»» description	body	string	No	none
» license	body	string	No	none
» intellectualProp	body	string	No	none

name	location	type	necessary	description
» discipline	body	string	Yes	none
» filePath	body	string	Yes	none
» endpoint	body	string	No	none
» accessKey	body	string	No	none
» secretKey	body	string	No	none

return example

success

```
{
  "code": 200,
  "message": "success",
  "data": {
    "uid": "fac808a0-ec80-4722-81f5-c3d45ce64ff2"
  }
}
```

## return result

status code	status code message	description	data mode
200	<a href="#">OK</a>	success	Inline

## return structure

status code **200**

name	type	constraint	description
» code	integer	none	status code
» message	string	none	status message
» data	object	none	none
»» uid	string	none	User id

## GET /v1.0/api/data-central/atom/jdbc/vector/crs

GET /v1.0/api/data-central/atom/jdbc/vector/crs

## request parameter

name	location	type	necessary	description
path	query	string	no	Data path
rzpj	header	string	no	Certificate

return example



success

```
{
  "code": 200,
  "message": "success",
  "data": {
    "identifier": null,
    "wkt": "GEOGCS[\"GCS_WGS_1984\", \n  DATUM[\"D_WGS_1984\", \n
SPHEROID[\"WGS_1984\", 6378137.0, 298.257223563]], \n  PRIMEM[\"Greenwich\",
0.0], \n  UNIT[\"degree\", 0.017453292519943295], \n  AXIS[\"Longitude\", EAST],
\n  AXIS[\"Latitude\", NORTH]]\"
  }
}
```

## return result

status code	status code message	description	data mode
200	<a href="#">OK</a>	success	Inline

## return structure

status code **200**

name	type	constraint	description
» code	integer	none	Status Code
» message	string	none	Status Information
» data	object	none	Dataset Information
»» identifier	null	none	none
»» wkt	string	none	none

## Dataset

### GET /v1.0/api/data-central/dataset

GET /v1.0/api/data-central/dataset/

Obtain a dataset based on its id or uid

## request parameter

name	location	type	necessary	description
uid	query	string	no	Dataset uid, which cannot be empty at the same time as the id
id	query	string	no	Dataset id, which cannot be empty at the same time as the uid
rzpj	header	string	yea	Certificate

return example

success

```
{
  "code": 200,
  "message": "success",
  "data": {
    "id": 25,
    "uid": "9c9798c6-c6e1-44d4-8083-8595bc15a0d3",
    "name": "Scotese & Wright 2018Ver.2",
    "type": "RASTER",
    "userId": "7003c445-1f0b-4f23-82ff-72dd345383fc",
    "privilege": "PUBLIC",
    "isOfficial": 0,
    "browseGraph": "dde.jpg",
    "keyword": "Paleogeography,Paleogeographic maps,Scotese & Wright",
    "author": {
      "metaDataStandardName": "None",
      "metaDataIdentifier": "None",
      "createTimestamp": 1426734778313,
      "authorName": "Christopher Scotese, Nicky Wright",
      "authorEmail": "3180101626@zju.edu.cn",
      "responsible": "None",
      "responsibleRegion": "US",
      "responsibleEmail": "3180101626@zju.edu.cn",
      "announcement": "None",
      "dataProtectionPeriod": "0",
      "license": "Creative Commons Attribution 4.0 International"
    },
    "description": {
      "title": "Paleogeographic maps by Scotese & wright (2018)",
      "alias": "Paleogeographic maps by Scotese & wright (2018)",
      "edition": "Version 2",
      "language": "English",
      "encoding": "UTF-8",
      "keyword": "Paleogeography,Paleogeographic maps,Scotese & Wright",
      "abstractInfo": "A series of paleogeographic maps ranging from 750 Ma to present",
      "topicCategory": "/Paleogeography",
      "additionalDoc": "Scotese, C. R., & Wright, N. M. (2018). PALEOMAP Paleodigital Elevation Models (PaleoDEMS) for the Phanerozoic [Map]. Zenodo. https://doi.org/10.5281/zenodo.5460860",
    }
  }
}
```

```

    "lineage": "The maps are created and published by Scotese & Wright in 2018
under the Creative Commons licence.",
    "source": "None",
    "date": "2018-08-01",
    "dataUrl": "https://zenodo.org/record/5460860"
  },
  "temporal": {
    "geologicTime": "Neoproterozoic and Phanerozoic",
    "geologicAge": "None",
    "base": 750,
    "top": 0,
    "gtsVersion": "International"
  },
  "space": {
    "type": "None",
    "resolution": "0.1 degree",
    "elevation": "-11000~10500",
    "extent": {
      "minX": -180,
      "maxX": 180,
      "minY": -90,
      "maxY": 90
    }
  },
  "geoIdentifier": "Global"
},
"boundaryWKT": null,
"coordinateReference": "WGS84",
"projection": "Equirectangular",
"service": {
  "type": "None",
  "doi": "None",
  "accessPrivilege": "None",
  "usePrivilege": "None",
  "associatedResource": "None",
  "associatedResMeta": "None",
  "coupledResource": "None",
  "distributionFormat": "None",
  "onlineResource": "None",
  "associatedPaperDOI": "None"
},
"createTime": 1650369385151,
"updateTime": 1650369385151
}
}

```

## return result

status code	status code message	description	data mode
200	<a href="#">OK</a>	success	Inline

## return structure

status code **200**

name	type	constraint	description
» code	integer	none	Status Code
» message	string	none	Status Information
» data	object	none	Dataset Information
»» id	integer	none	Dataset ID
»» uid	string	none	Dataset UID
»» name	string	none	Unit name
»» type	string	none	Dataset Type
»» userId	string	none	Userid
»» privilege	string	none	AccessPermission,Value= public, private
»» isOfficial	integer	none	Is it official ?
»» browseGraph	string	none	BrowseGraph
»» keyword	string	none	Keyword
»» author	object	none	Author
»»» metaDataStandardName	string	none	Standard metadata name
»»» metaDataIdentifier	string	none	Metadata definition
»»» createTimestamp	integer	none	Metadata create timestamp
»»» authorName	string	none	Author name
»»» authorEmail	string	none	Author email
»»» responsible	string	none	Responsible
»»» responsibleRegion	string	none	Responsible region
»»» responsibleEmail	string	none	Responsible Email
»»» announcement	string	none	Declaration
»»» dataProtectionPeriod	string	none	Data protection cycle
»»» license	string	none	License
»» description	object	none	Description
»»» title	string	none	Title
»»» alias	string	none	Alias
»»» edition	string	none	Version
»»» language	string	none	Language
»»» encoding	string	none	Encoding
»»» keyword	string	none	Keyword
»»» abstractInfo	string	none	Abstract information
»»» topicCategory	string	none	Topic category
»»» additionalDoc	string	none	Additional documentation

name	type	constraint	description
»»» lineage	string	none	Data lineage
»»» source	string	none	Source
»»» date	string	none	Date
»»» dataUrl	string	none	Data address
»» temporal	object	none	Time
»»» geologicTime	string	none	Geologic time, e.g, Quaternary
»»» geologicAge	string	none	Geological age, e.g,1, 100 to 200.2
»»» base	integer	none	The earliest possible time point, e.g,150.3
»»» top	integer	none	The latest possible time point, e.g,10.2
»»» gtsVersion	string	none	Geological Age version, e.g,INTERNATIONAL CHRONOSTRATIGRAPHIC CHART v2021/05
»» space	object	none	Spatial Information
»»» type	string	none	Type
»»» resolution	string	none	Spatial resolution
»»» elevation	string	none	Elevation
»»» extent	object	none	extent
»»»» minX	integer	none	Minimum x
»»»» maxX	integer	none	Maximum x
»»»» minY	integer	none	Minimum y
»»»» maxY	integer	none	Maximum y
»»» geolIdentifier	string	none	GeolIdentifier
»» boundaryWKT	null	none	The range of the spatial region. The value is returned in wkt format
»» coordinateReference	string	none	coordinate Reference
»» projection	string	none	Projection coordinate system
»» service	object	none	Service
»»» type	string	none	Dataset type
»»» doi	string	none	The unique identifier of the data object
»»» accessPrivilege	string	none	Access permissions
»»» usePrivilege	string	none	Permission
»»» associatedResource	string	none	Associated resources
»»» associatedResMeta	string	none	Associated resource metadata
»»» coupledResource	string	none	Coupling resources
»»» distributionFormat	string	none	Format of data distribution
»»» onlineResource	string	none	Reference resources online

name	type	constraint	description
»»» associatedPaperDOI	string	none	Associated paper DOI
»» createTime	integer	none	Created
»» updateTime	integer	none	Update Time

## POST /v1.0/api/data-central/dataset

POST /v1.0/api/data-central/dataset/

Add a dataset

Body request parameter

```
{
  "name": "Scotese & Wright 2018Ver.2",
  "type": "RASTER",
  "privilege": "0",
  "browseGraph": "dde.jpg",
  "keyword": "Paleogeography,Paleogeographic maps,Scotese & Wright",
  "author": {
    "createTimestamp": 1426734778313,
    "authorName": "Christopher Scotese, Nicky Wright",
    "authorEmail": "cscotese@gmail.com",
    "responsible": "None",
    "responsibleRegion": "US",
    "responsibleEmail": "None",
    "license": "Creative Commons Attribution 4.0 International",
    "dataProtectionPeriod": "0",
    "announcement": "None",
    "metaDataIdentifier": "None",
    "metaDataStandardName": "None"
  },
  "description": {
    "edition": "Version 2",
    "language": "English",
    "encoding": "UTF-8",
    "abstractInfo": "A series of paleogeographic maps ranging from 750 Ma to present",
    "topicCategory": "/Paleogeography",
    "alias": "Paleogeographic maps by Scotese & Wright (2018)",
    "date": "2018-08-01",
    "dataUrl": "https://zenodo.org/record/5460860",
    "title": "Paleogeographic maps by Scotese & Wright (2018)",
    "lineage": "The maps are created and published by Scotese & Wright in 2018 under the Creative Commons licence.",
    "keyword": "Paleogeography,Paleogeographic maps,Scotese & Wright",
    "source": "None",
    "additionalDoc": "Scotese, C. R., & Wright, N. M. (2018). PALEOMAP Paleodigital Elevation Models (PaleoDEMS) for the Phanerozoic [Map]. Zenodo. https://doi.org/10.5281/zenodo.5460860"
  },
  "temporal": {
    "geologicTime": "Neoproterozoic and Phanerozoic",
```

```

    "base": 750,
    "top": 0,
    "gtsVersion": "International",
    "geologicAge": "None"
  },
  "space": {
    "resolution": "0.1 degree",
    "extent": {
      "minX": -180,
      "maxX": 180,
      "minY": -90,
      "maxY": 90
    },
    "elevation": "-11000~10500",
    "geoIdentifier": "Global",
    "type": "None"
  },
  "coordinateReference": "WGS84",
  "projection": "Equirectangular",
  "service": {
    "associatedResource": "None",
    "associatedPaperDOI": "None",
    "doi": "None",
    "distributionFormat": "None",
    "onlineResource": "None",
    "usePrivilege": "None",
    "associatedResMeta": "None",
    "coupledResource": "None",
    "type": "None",
    "accessPrivilege": "None"
  }
}

```

**request parameter**



name	location	type	necessary	description
rzpj	header	string	yes	Certificate
body	body	object	no	none
» name	body	string	yes	Dataset name
» type	body	string	yes	Dataset type
» privilege	body	string	yes	AccessPermission,Value= public, private
» isOfficial	body	integer	yes	Is it official ?
» browseGraph	body	string	yes	BrowseGraph
» keyword	body	string	yes	Keyword
» author	body	object	yes	Author
»» createTimestamp	body	integer	yes	Metadata create timestamp
»» authorName	body	string	yes	Author name
»» authorEmail	body	string	yes	Author email
»» responsible	body	string	yes	Responsible
»» responsibleRegion	body	string	yes	Responsibile region
»» responsibleEmail	body	string	yes	Responsible Email
»» license	body	string	yes	License
»» dataProtectionPeriod	body	string	yes	Data protection cycle
»» announcement	body	string	yes	Announcement
»» metaDataIdentifier	body	string	yes	Metadata definition
»» metaDataStandardName	body	string	yes	Standard metadata name
» description	body	object	yes	Description
»» edition	body	string	yes	Version
»» language	body	string	yes	Language
»» encoding	body	string	yes	Encoding
»» abstractInfo	body	string	yes	Abstract information
»» topicCategory	body	string	yes	Topic category
»» alias	body	string	yes	Alias
»» date	body	string	yes	Date
»» dataUrl	body	string	yes	Data address
»» title	body	string	yes	Title
»» lineage	body	string	yes	Data lineage
»» keyword	body	string	yes	Keyword
»» source	body	string	yes	Source
»» additionalDoc	body	string	yes	Additional documentation
» temporal	body	object	yes	Time
»» geologicTime	body	string	yes	Geologic time, e.g. Quaternary
»» base	body	integer	yes	The earliest possible time point, e.g.150.3
»» top	body	integer	yes	The latest possible time point, e.g.10.2
»» gtsVersion	body	string	yes	Geological Age version, e.g.INTERNATIONAL CHRONOSTRATIGRAPHIC CHART v2021/05
»» geologicAge	body	string	yes	Geological age, e.g.1, 100 to 200.2
» space	body	object	yes	Spatial Information

name	location	type	necessary	description
»» resolution	body	string	yes	Spatial resolution
»» extent	body	object	yes	extent
»»» minX	body	integer	yes	Minimum x
»»» maxX	body	integer	yes	Maximum x
»»» minY	body	integer	yes	Minimum y
»»» maxY	body	integer	yes	Maximum y
»» elevation	body	string	yes	Elevation
»» geolIdentifier	body	string	yes	GeolIdentifier
»» type	body	string	yes	Type
» coordinateReference	body	string	yes	coordinate Reference
» projection	body	string	yes	Projection coordinate system
» service	body	object	yes	Service
»» associatedResource	body	string	yes	Associated resources
»» associatedPaperDOI	body	string	yes	Associated paper DOI
»» doi	body	string	yes	The unique identifier of the data object
»» distributionFormat	body	string	yes	Format of data distribution
»» onlineResource	body	string	yes	Reference resources online
»» usePrivilege	body	string	yes	Permission
»» associatedResMeta	body	string	yes	Associated resource metadata
»» coupledResource	body	string	yes	Coupling resources
»» type	body	string	yes	Dataset type
»» accessPrivilege	body	string	yes	Access permissions

return example

success

```
{
  "code": 200,
  "message": "success",
  "data": {
    "uid": "9c9798c6-c6e1-44d4-8083-8595bc15a0d3"
  }
}
```

## return result

status code	status code message	description	data mode
200	<a href="#">OK</a>	success	Inline

## return structure

status code **200**

name	type	constraint	description
» code	integer	none	Status Code
» message	string	none	Status Message
» data	object	none	Dataset information
»» uid	string	none	Dataset UID

## GET /v1.0/api/data-central/dataset/{datasetName}

GET /v1.0/api/data-central/dataset/{datasetName}

Obtain a dataset based on its name

### request parameter

name	location	type	necessary	description
datasetName	path	string	yes	Dataset Name
rzpj	header	string	yes	Certificate

return example

success

```
{
  "code": 200,
  "message": "success",
  "data": {
    "id": 25,
    "uid": "9c9798c6-c6e1-44d4-8083-8595bc15a0d3",
    "name": "Scotese & Wright 2018Ver.2",
    "type": "RASTER",
    "userId": "7003c445-1f0b-4f23-82ff-72dd345383fc",
    "privilege": "PUBLIC",
    "isOfficial": 0,
    "browseGraph": "wlq.jpg",
    "keyword": "Paleogeography,Paleogeographic maps,Scotese & Wright",
    "author": {
      "metaDataStandardName": "None",
      "metaDataIdentifier": "None",
      "createTimestamp": 1426734778313,
      "authorName": "Christopher Scotese, Nicky Wright",
      "authorEmail": "3180101626@zju.edu.cn",
      "responsible": "None",
      "responsibleRegion": "US",
      "responsibleEmail": "3180101626@zju.edu.cn",
      "announcement": "None",
      "dataProtectionPeriod": "0",

```

```

    "license": "Creative Commons Attribution 4.0 International"
  },
  "description": {
    "title": "Paleogeographic maps by Scotese & Wright (2018)",
    "alias": "Paleogeographic maps by Scotese & Wright (2018)",
    "edition": "Version 2",
    "language": "English",
    "encoding": "UTF-8",
    "keyword": "Paleogeography,Paleogeographic maps,Scotese & Wright",
    "abstractInfo": "A series of paleogeographic maps ranging from 750 Ma
to present",
    "topicCategory": "/Paleogeography",
    "additionalDoc": "Scotese, C. R., & Wright, N. M. (2018). PALEOMAP
Paleodigital Elevation Models (PaleoDEMS) for the Phanerozoic [Map]. Zenodo.
https://doi.org/10.5281/zenodo.5460860",
    "lineage": "The maps are created and published by Scotese & Wright in
2018 under the Creative Commons licence.",
    "source": "None",
    "date": "2018-08-01",
    "dataUrl": "https://zenodo.org/record/5460860"
  },
  "temporal": {
    "geologicTime": "Neoproterozoic and Phanerozoic",
    "geologicAge": "None",
    "base": 750,
    "top": 0,
    "gtsVersion": "International"
  },
  "space": {
    "type": "None",
    "resolution": "0.1 degree",
    "elevation": "-11000~10500",
    "extent": {
      "minX": -180,
      "maxX": 180,
      "minY": -90,
      "maxY": 90
    },
    "geoIdentifier": "Global"
  },
  "boundaryWKT": null,
  "coordinateReference": "WGS84",
  "projection": "Equiangular",
  "service": {
    "type": "None",
    "doi": "None",
    "accessPrivilege": "None",
    "usePrivilege": "None",
    "associatedResource": "None",
    "associatedResMeta": "None",
    "coupledResource": "None",
    "distributionFormat": "None",
    "onlineResource": "None",
    "associatedPaperDOI": "None"
  },

```

```
    "createTime": 1650369385151,  
    "updateTime": 1650369385151  
  }  
}
```

## return result

status code	status code message	description	data mode
200	<a href="#">OK</a>	success	Inline

## return structure

status code **200**

name	type	constraint	description
» code	integer	none	Status Code
» message	string	none	Status Information
» data	object	none	Dataset Information
»» id	integer	none	Dataset ID
»» uid	string	none	Dataset UID
»» name	string	none	Unit name
»» type	string	none	Dataset Type
»» userId	string	none	Userid
»» privilege	string	none	AccessPermission,Value= public, private
»» isOfficial	integer	none	Is it official ?
»» browseGraph	string	none	BrowseGraph
»» keyword	string	none	Keyword
»» author	object	none	Author
»»» metaDataStandardName	string	none	Standard metadata name
»»» metaDataIdentifier	string	none	Metadata definition
»»» createTimestamp	integer	none	Metadata create timestamp
»»» authorName	string	none	Author name
»»» authorEmail	string	none	Author email
»»» responsible	string	none	Responsible
»»» responsibleRegion	string	none	Responsibile region
»»» responsibleEmail	string	none	Responsible Email
»»» announcement	string	none	Declaration
»»» dataProtectionPeriod	string	none	Data protection cycle
»»» license	string	none	License
»» description	object	none	Description
»»» title	string	none	Title
»»» alias	string	none	Alias
»»» edition	string	none	Version
»»» language	string	none	Language
»»» encoding	string	none	Encoding
»»» keyword	string	none	Keyword
»»» abstractInfo	string	none	Abstract information
»»» topicCategory	string	none	Topic category
»»» additionalDoc	string	none	Additional documentation

name	type	constraint	description
»»» lineage	string	none	Data lineage
»»» source	string	none	Source
»»» date	string	none	Date
»»» dataUrl	string	none	Data address
»» temporal	object	none	Time
»»» geologicTime	string	none	Geologic time, e.g, Quaternary
»»» geologicAge	string	none	Geological age, e.g,1, 100 to 200.2
»»» base	integer	none	The earliest possible time point, e.g,150.3
»»» top	integer	none	The latest possible time point, e.g,10.2
»»» gtsVersion	string	none	Geological Age version, e.g,INTERNATIONAL CHRONOSTRATIGRAPHIC CHART v2021/05
»» space	object	none	Spatial Information
»»» type	string	none	Type
»»» resolution	string	none	Spatial resolution
»»» elevation	string	none	Elevation
»»» extent	object	none	extent
»»»» minX	integer	none	Minimum x
»»»» maxX	integer	none	Maximum x
»»»» minY	integer	none	Minimum y
»»»» maxY	integer	none	Maximum y
»»» geolIdentifier	string	none	GeolIdentifier
»» boundaryWKT	null	none	The range of the spatial region. The value is returned in wkt format
»» coordinateReference	string	none	coordinate Reference
»» projection	string	none	Projection coordinate system
»» service	object	none	Service
»»» type	string	none	Dataset type
»»» doi	string	none	The unique identifier of the data object
»»» accessPrivilege	string	none	Access permissions
»»» usePrivilege	string	none	Permission
»»» associatedResource	string	none	Associated resources
»»» associatedResMeta	string	none	Associated resource metadata
»»» coupledResource	string	none	Coupling resources
»»» distributionFormat	string	none	Format of data distribution
»»» onlineResource	string	none	Reference resources online

name	type	constraint	description
»»» associatedPaperDOI	string	none	Associated paper DOI
»» createTime	integer	none	Created
»» updateTime	integer	none	Update Time

## POST /v1.0/api/data-central/dataset/{datasetId}/atoms/uid

POST /v1.0/api/data-central/dataset/{datasetUid}/atoms/uid

Add an atom to a dataset

### request parameter

name	location	type	necessary	description
datasetUid	path	string	yes	Dataset UID
atomUids	query	string	yes	The Uid set of data atom
rzpj	header	string	yes	Certificate

return example

success

```
{
  "code": 200,
  "message": "success",
  "data": {
    "id": 25,
    "uid": "9c9798c6-c6e1-44d4-8083-8595bc15a0d3",
    "name": "Scotese & Wright 2018Ver.2",
    "type": "RASTER",
    "userId": "7003c445-1f0b-4f23-82ff-72dd345383fc",
    "privilege": "PUBLIC",
    "isOfficial": 0,
    "browseGraph": "dde.jpg",
    "keyword": "Paleogeography,Paleogeographic maps,Scotese & Wright",
    "author": {
      "metaDataStandardName": "None",
      "metaDataIdentifier": "None",
      "createTimestamp": 1426734778313,
      "authorName": "Christopher Scotese, Nicky Wright",
      "authorEmail": "3180101626@zju.edu.cn",
      "responsible": "None",
      "responsibleRegion": "US",
      "responsibleEmail": "3180101626@zju.edu.cn",
      "announcement": "None",
      "dataProtectionPeriod": "0",
      "license": "Creative Commons Attribution 4.0 International"
    },
    "description": {
      "title": "Paleogeographic maps by Scotese & Wright (2018)",

```



```

    "alias": "Paleogeographic maps by Scotese & Wright (2018)",
    "edition": "Version 2",
    "language": "English",
    "encoding": "UTF-8",
    "keyword": "Paleogeography, Paleogeographic maps, Scotese & Wright",
    "abstractInfo": "A series of paleogeographic maps ranging from 750 Ma
to present",
    "topicCategory": "/Paleogeography",
    "additionalDoc": "Scotese, C. R., & Wright, N. M. (2018). PALEOMAP
Paleodigital Elevation Models (PaleoDEMS) for the Phanerozoic [Map]. Zenodo.
https://doi.org/10.5281/zenodo.5460860",
    "lineage": "The maps are created and published by Scotese & Wright in
2018 under the Creative Commons licence.",
    "source": "None",
    "date": "2018-08-01",
    "dataUrl": "https://zenodo.org/record/5460860"
  },
  "temporal": {
    "geologicTime": "Neoproterozoic and Phanerozoic",
    "geologicAge": "None",
    "base": 750,
    "top": 0,
    "gtsVersion": "International"
  },
  "space": {
    "type": "None",
    "resolution": "0.1 degree",
    "elevation": "-11000~10500",
    "extent": {
      "minX": -180,
      "maxX": 180,
      "minY": -90,
      "maxY": 90
    }
  },
  "geoIdentifier": "Global"
},
"boundaryWKT": null,
"coordinateReference": "WGS84",
"projection": "Equirectangular",
"service": {
  "type": "None",
  "doi": "None",
  "accessPrivilege": "None",
  "usePrivilege": "None",
  "associatedResource": "None",
  "associatedResMeta": "None",
  "coupledResource": "None",
  "distributionFormat": "None",
  "onlineResource": "None",
  "associatedPaperDOI": "None"
},
"createTime": 1650369385151,
"updateTime": 1650369385151
}

```

## return result

status code	status code message	description	data mode
200	<a href="#">OK</a>	success	Inline

## return structure

status code **200**

name	type	constraint	description
» code	integer	none	Status Code
» message	string	none	Status Information
» data	object	none	Dataset Information
»» id	integer	none	Dataset ID
»» uid	string	none	Dataset UID
»» name	string	none	Unit name
»» type	string	none	Dataset Type
»» userId	string	none	Userid
»» privilege	string	none	AccessPermission,Value= public, private
»» isOfficial	integer	none	Is it official ?
»» browseGraph	string	none	BrowseGraph
»» keyword	string	none	Keyword
»» author	object	none	Author
»»» metaDataStandardName	string	none	Standard metadata name
»»» metaDataIdentifier	string	none	Metadata definition
»»» createTimestamp	integer	none	Metadata create timestamp
»»» authorName	string	none	Author name
»»» authorEmail	string	none	Author email
»»» responsible	string	none	Responsible
»»» responsibleRegion	string	none	Responsibile region
»»» responsibleEmail	string	none	Responsible Email
»»» announcement	string	none	Declaration
»»» dataProtectionPeriod	string	none	Data protection cycle
»»» license	string	none	License
»» description	object	none	Description
»»» title	string	none	Title
»»» alias	string	none	Alias
»»» edition	string	none	Version
»»» language	string	none	Language
»»» encoding	string	none	Encoding
»»» keyword	string	none	Keyword
»»» abstractInfo	string	none	Abstract information
»»» topicCategory	string	none	Topic category
»»» additionalDoc	string	none	Additional documentation

name	type	constraint	description
»»» lineage	string	none	Data lineage
»»» source	string	none	Source
»»» date	string	none	Date
»»» dataUrl	string	none	Data address
»» temporal	object	none	Time
»»» geologicTime	string	none	Geologic time, e.g, Quaternary
»»» geologicAge	string	none	Geological age, e.g,1, 100 to 200.2
»»» base	integer	none	The earliest possible time point, e.g,150.3
»»» top	integer	none	The latest possible time point, e.g,10.2
»»» gtsVersion	string	none	Geological Age version, e.g,INTERNATIONAL CHRONOSTRATIGRAPHIC CHART v2021/05
»» space	object	none	Spatial Information
»»» type	string	none	Type
»»» resolution	string	none	Spatial resolution
»»» elevation	string	none	Elevation
»»» extent	object	none	extent
»»»» minX	integer	none	Minimum x
»»»» maxX	integer	none	Maximum x
»»»» minY	integer	none	Minimum y
»»»» maxY	integer	none	Maximum y
»»» geolIdentifier	string	none	GeolIdentifier
»» boundaryWKT	null	none	The range of the spatial region. The value is returned in wkt format
»» coordinateReference	string	none	coordinate Reference
»» projection	string	none	Projection coordinate system
»» service	object	none	Service
»»» type	string	none	Dataset type
»»» doi	string	none	The unique identifier of the data object
»»» accessPrivilege	string	none	Access permissions
»»» usePrivilege	string	none	Permission
»»» associatedResource	string	none	Associated resources
»»» associatedResMeta	string	none	Associated resource metadata
»»» coupledResource	string	none	Coupling resources
»»» distributionFormat	string	none	Format of data distribution
»»» onlineResource	string	none	Reference resources online

name	type	constraint	description
»»» associatedPaperDOI	string	none	Associated paper DOI
»» createTime	integer	none	Created
»» updateTime	integer	none	Update Time

## GET /v1.0/api/data-central/dataset/list/user

GET /v1.0/api/data-central/dataset/list/user

Obtain the list of DataSet belonging to the user

### request parameter

name	location	type	necessary	description
page	query	string	no	In the previous page, if you want to display the first page, use 0
pageSize	query	string	no	Number of Entries displayed per page
spatialWkt	query	string	no	Enter wkt as the spatial query and return the boundaryWKT. If you do not specify this parameter, you will not be added to the spatial query.
top	query	string	no	Maximum time range for querying data
base	query	string	no	Minimum time range for querying data
keyword	query	string	no	Keyword
startTimestamp	query	string	no	Start time
endTimestamp	query	string	no	End time
rzpj	header	string	yes	Certificate

return example

success

```
{
  "code": 200,
  "message": "success",
  "data": {
    "total": 2,
    "list": [
      {
        "id": 24,
        "uid": "5fd7fd2c-8140-42d5-b5bd-55f2061b3c3b",
        "name": "Paleogeographic maps by Scotese & Wright (2018)",
        "type": "RASTER",
        "userId": "ADMIN",
        "privilege": "PUBLIC",
        "isOfficial": 1,
        "browseGraph": null,

```

```

"keyword": "Paleogeography,Paleogeographic maps,Scotese &
wright",
  "author": {
    "metaDataStandardName": null,
    "metaDataIdentifier": null,
    "createTimestamp": 0,
    "authorName": "Christopher Scotese, Nicky wright",
    "authorEmail": "cscotese@gmail.com",
    "responsible": null,
    "responsibleRegion": "US",
    "responsibleEmail": null,
    "announcement": null,
    "dataProtectionPeriod": null,
    "license": "Creative Commons Attribution 4.0 International"
  },
  "description": {
    "title": "Paleogeographic maps by Scotese & wright (2018)",
    "alias": "Paleogeographic maps by Scotese & wright (2018)",
    "edition": "Version 2",
    "language": "English",
    "encoding": "UTF-8",
    "keyword": "Paleogeography,Paleogeographic maps,Scotese &
wright",
    "abstractInfo": "A series of paleogeographic maps ranging
from 750 Ma to present",
    "topicCategory": "/Paleogeography",
    "additionalDoc": "Scotese, C. R., & Wright, N. M. (2018).
PALEOMAP Paleodigital Elevation Models (PaleoDEMS) for the Phanerozoic [Map].
Zenodo. https://doi.org/10.5281/zenodo.5460860",
    "lineage": "The maps are created and published by Scotese &
wright in 2018 under the Creative Commons licence.",
    "source": null,
    "date": "2018-08-01",
    "dataUrl": "https://zenodo.org/record/5460860"
  },
  "temporal": {
    "geologicTime": "Neoproterozoic and Phanerozoic",
    "geologicAge": null,
    "base": 750,
    "top": 0,
    "gtsVersion": "International"
  },
  "space": {
    "type": null,
    "resolution": "0.1 degree",
    "elevation": "-11000~10500",
    "extent": {
      "minX": -180,
      "maxX": 180,
      "minY": -90,
      "maxY": 90
    },
    "geoIdentifier": "Global"
  },

```

```

"boundaryWKT": "POLYGON((-180 -90,-180 90,180 90,180 -90,-180
-90))",
"coordinateReference": "WGS 84",
"projection": "Equirectangular",
"service": null,
"createTime": 1648455648429,
"updateTime": 1648455648429
},
{
  "id": 23,
  "uid": "bd215cf0-6d65-4b42-829d-3fdcacb55191",
  "name": "Hu et al. (2021) paleo-precipitation modeling",
  "type": "RASTER",
  "userId": "ADMIN",
  "privilege": "PUBLIC",
  "isOfficial": 1,
  "browseGraph": null,
  "keyword": "paleoclimate modeling, Phanerozoic, precipitation",
  "author": {
    "metaDataStandardName": null,
    "metaDataIdentifier": null,
    "createTimestamp": 0,
    "authorName": "Yongyun Hu",
    "authorEmail": "yyhu@pku.edu.cn",
    "responsible": "Yongyun Hu",
    "responsibleRegion": "CN",
    "responsibleEmail": "yyhu@pku.edu.cn",
    "announcement": null,
    "dataProtectionPeriod": null,
    "license": null
  },
  "description": {
    "title": "A high-resolution climate simulation dataset for
the past 540 million years",
    "alias": "A high-resolution climate simulation dataset for
the past 540 million years",
    "edition": "Version1.0 2022/4/30",
    "language": "English",
    "encoding": "UTF-8",
    "keyword": null,
    "abstractInfo": "Here we perform 55 snapshot simulations for
the past 540 million years, with a 10-million-year interval, using the Community
Earth System Model version 1.2.2 (CESM1.2.2). The climate simulation dataset
includes global distributions of monthly surface temperatures and precipitation,
with a nominal 1° horizontal resolution of 0.9375° × 1.25° in latitude and
longitude. This open access climate dataset is useful for multidisciplinary
research, such as paleoclimate, geology, geochemistry, and paleontology.",
    "topicCategory": "/Surficial Geochemistry/Paleoclimate",
    "additionalDoc": "Li, X., Y. Hu*, et al., 2022: A high-
resolution climate simulation dataset for the past 540 million years, in
review",
    "lineage": null,
    "source": null,
    "date": null,
    "dataUrl": null
  }
}

```

```

    },
    "temporal": {
      "geologicTime": "Phanerozoic",
      "geologicAge": null,
      "base": 540,
      "top": 0,
      "gtsVersion": "INTERNATIONAL"
    },
    "space": {
      "type": null,
      "resolution": "0.9375° × 1.25° in latitude and longitude",
      "elevation": null,
      "extent": {
        "minX": -180,
        "maxX": 180,
        "minY": -90,
        "maxY": 90
      },
      "geoIdentifier": "Global"
    },
    "boundaryWKT": "POLYGON((-180 -90,-180 90,180 90,180 -90,-180
-90))",
    "coordinateReference": "WGS 84",
    "projection": "Equirectangular",
    "service": {
      "type": null,
      "doi": null,
      "accessPrivilege": null,
      "usePrivilege": null,
      "associatedResource": null,
      "associatedResMeta": null,
      "coupledResource": null,
      "distributionFormat": null,
      "onlineResource": null,
      "associatedPaperDOI": null
    },
    "createTime": 1648452964288,
    "updateTime": 1648452964288
  }
}
]
}
}

```

## return result

status code	status code message	description	data mode
200	<a href="#">OK</a>	success	Inline



## return structure

status code **200**

name	type	constraint	description
» code	integer	none	Status Code
» message	string	none	Status Information
» data	object	none	Dataset Information
»» total	integer	none	The number of data records
»» list	[object]	none	Dataset list
»»» id	integer	none	Dataset ID
»»» uid	string	none	Dataset UID
»»» name	string	none	Unit name
»»» type	string	none	Dataset Type
»»» userId	string	none	Userid
»»» privilege	string	none	AccessPermission,Value= public, private
»»» isOfficial	integer	none	Is it official ?
»»» browseGraph	null	none	BrowseGraph
»»» keyword	string	none	Keyword
»»» author	object	none	Author
»»»» metaDataSetStandardName	null	none	Standard metadata name
»»»» metaDataSetIdentifier	null	none	Metadata definition
»»»» createTimeStamp	integer	none	Metadata create timestamp
»»»» authorName	string	none	Author name
»»»» authorEmail	string	none	Author email
»»»» responsible	null	none	Responsible
»»»» responsibleRegion	string	none	Responsible region
»»»» responsibleEmail	null	none	Responsible Email
»»»» announcement	null	none	Declaration
»»»» dataProtectionPeriod	null	none	Data protection cycle
»»»» license	string! null	none	License
»»» description	object	none	Description
»»»» title	string	none	Title
»»»» alias	string	none	Alias
»»»» edition	string	none	Version
»»»» language	string	none	Language
»»»» encoding	string	none	Encoding
»»»» keyword	string! null	none	Keyword
»»»» abstractInfo	string	none	Abstract information
»»»» topicCategory	string	none	Topic category
»»»» additionalDoc	string	none	Additional documentation
»»»» lineage	string! null	none	Data lineage

name	type	constraint	description
»»»» source	null	none	Source
»»»» date	string 'null	none	Date
»»»» dataUrl	string 'null	none	Data address
»»» temporal	object	none	Time
»»»» geologicTime	string	none	Geologic time, e.g, Quaternary
»»»» geologicAge	null	none	Geological age, e.g,1, 100 to 200.2
»»»» base	integer	none	The earliest possible time point, e.g,150.3
»»»» top	integer	none	The latest possible time point, e.g,10.2
»»»» gtsVersion	string	none	Geological Age version, e.g,INTERNATIONAL CHRONOSTRATIGRAPHIC CHART v2021/05
»»» space	object	none	Spatial Information
»»»» type	null	none	Type
»»»» resolution	string	none	Spatial resolution
»»»» elevation	string 'null	none	Elevation
»»»» extent	object	none	extent
»»»»» minX	integer	none	Minimum x
»»»»» maxX	integer	none	Maximum x
»»»»» minY	integer	none	Minimum y
»»»»» maxY	integer	none	Maximum y
»»»» geolIdentifier	string	none	GeolIdentifier
»»» boundaryWKT	string	none	The range of the spatial region. The value is returned in wkt format
»»» coordinateReference	string	none	coordinate Reference
»»» projection	string	none	Projection coordinate system
»»» service	object	none	Service
»»»» type	null	none	Dataset type
»»»» doi	null	none	The unique identifier of the data object
»»»» accessPrivilege	null	none	Access permissions
»»»» usePrivilege	null	none	Permission
»»»» associatedResource	null	none	Associated resources
»»»» associatedResMeta	null	none	Associated resource metadata
»»»» coupledResource	null	none	Coupling resources
»»»» distributionFormat	null	none	Format of data distribution
»»»» onlineResource	null	none	Reference resources online
»»»» associatedPaperDOI	null	none	Associated paper DOI
»»» createTime	integer	none	Created
»»» updateTime	integer	none	Update Time

# GET /v1.0/api/data-central/dataset/list/public

GET /v1.0/api/data-central/dataset/list/public

Obtains a list of public DataAtom

## request parameter

name	location	type	necessary	description
page	query	string	no	In the previous page, if you want to display the first page, use 0
pageSize	query	string	no	Number of Entries displayed per page
official	query	string	no	Is it official
spatialWkt	query	string	no	Enter wkt as the spatial query and return the boundaryWKT. If you do not specify this parameter, you will not be added to the spatial query.
top	query	string	no	Maximum time range for querying data
base	query	string	no	Minimum time range for querying data
keyword	query	string	no	Keyword

return example

success

```
{
  "code": 200,
  "message": "success",
  "data": {
    "total": 2,
    "list": [
      {
        "id": 24,
        "uid": "5fd7fd2c-8140-42d5-b5bd-55f2061b3c3b",
        "name": "Paleogeographic maps by Scotese & wright (2018)",
        "type": "RASTER",
        "userId": "ADMIN",
        "privilege": "PUBLIC",
        "isofficial": 1,
        "browseGraph": null,
        "keyword": "Paleogeography,Paleogeographic maps,Scotese &
wright",
        "author": {
          "metaDataStandardName": null,
          "metaDataIdentifier": null,
          "createTimestamp": 0,
          "authorName": "Christopher Scotese, Nicky wright",
          "authorEmail": "cscotese@gmail.com",
          "responsible": null,

```

```

        "responsibleRegion": "US",
        "responsibleEmail": null,
        "announcement": null,
        "dataProtectionPeriod": null,
        "license": "Creative Commons Attribution 4.0 International"
    },
    "description": {
        "title": "Paleogeographic maps by Scotese & Wright (2018)",
        "alias": "Paleogeographic maps by Scotese & Wright (2018)",
        "edition": "Version 2",
        "language": "English",
        "encoding": "UTF-8",
        "keyword": "Paleogeography,Paleogeographic maps,Scotese &
wright",
        "abstractInfo": "A series of paleogeographic maps ranging
from 750 Ma to present",
        "topicCategory": "/Paleogeography",
        "additionalDoc": "Scotese, C. R., & Wright, N. M. (2018).
PALEOMAP Paleodigital Elevation Models (PaleoDEMS) for the Phanerozoic [Map].
Zenodo. https://doi.org/10.5281/zenodo.5460860",
        "lineage": "The maps are created and published by Scotese &
wright in 2018 under the Creative Commons licence.",
        "source": null,
        "date": "2018-08-01",
        "dataUrl": "https://zenodo.org/record/5460860"
    },
    "temporal": {
        "geologicTime": "Neoproterozoic and Phanerozoic",
        "geologicAge": null,
        "base": 750,
        "top": 0,
        "gtsVersion": "International"
    },
    "space": {
        "type": null,
        "resolution": "0.1 degree",
        "elevation": "-11000~10500",
        "extent": {
            "minX": -180,
            "maxX": 180,
            "minY": -90,
            "maxY": 90
        },
        "geoIdentifier": "Global"
    },
    "boundaryWKT": "POLYGON((-180 -90,-180 90,180 90,180 -90,-180
-90))",
    "coordinateReference": "WGS 84",
    "projection": "Equirectangular",
    "service": null,
    "createTime": 1648455648429,
    "updateTime": 1648455648429
},
{
    "id": 23,

```

```
"uid": "bd215cf0-6d65-4b42-829d-3fdcacb55191",
"name": "Hu et al. (2021) paleo-precipitation modeling",
"type": "RASTER",
"userId": "ADMIN",
"privilege": "PUBLIC",
"isofficial": 1,
"browseGraph": null,
"keyword": "paleoclimate modeling, Phanerozoic, precipitation",
"author": {
  "metaDataStandardName": null,
  "metaDataIdentifier": null,
  "createTimestamp": 0,
  "authorName": "author",
  "authorEmail": "dde@dde.com",
  "responsible": "dde",
  "responsibleRegion": "CN",
  "responsibleEmail": "dde@dde.com",
  "announcement": null,
  "dataProtectionPeriod": null,
  "license": null
},
"description": {
  "title": "A high-resolution climate simulation dataset for
the past 540 million years",
  "alias": "A high-resolution climate simulation dataset for
the past 540 million years",
  "edition": "Version1.0 2022/4/30",
  "language": "English",
  "encoding": "UTF-8",
  "keyword": null,
  "abstractInfo": "Here we perform 55 snapshot simulations for
the past 540 million years, with a 10-million-year interval, using the Community
Earth System Model version 1.2.2 (CESM1.2.2). The climate simulation dataset
includes global distributions of monthly surface temperatures and precipitation,
with a nominal 1° horizontal resolution of 0.9375° × 1.25° in latitude and
longitude. This open access climate dataset is useful for multidisciplinary
research, such as paleoclimate, geology, geochemistry, and paleontology.",
  "topicCategory": "/Surficial Geochemistry/Paleoclimate",
  "additionalDoc": "Li, X., Y. Hu*, et al., 2022: A high-
resolution climate simulation dataset for the past 540 million years, in
review",
  "lineage": null,
  "source": null,
  "date": null,
  "dataUrl": null
},
"temporal": {
  "geologicTime": "Phanerozoic",
  "geologicAge": null,
  "base": 540,
  "top": 0,
  "gtsVersion": "INTERNATIONAL"
},
"space": {
  "type": null,
```

```

        "resolution": "0.9375° × 1.25° in latitude and longitude",
        "elevation": null,
        "extent": {
            "minX": -180,
            "maxX": 180,
            "minY": -90,
            "maxY": 90
        },
        "geoIdentifier": "Global"
    },
    "boundaryWKT": "POLYGON((-180 -90,-180 90,180 90,180 -90,-180
-90))",
    "coordinateReference": "WGS 84",
    "projection": "Equiarectangular",
    "service": {
        "type": null,
        "doi": null,
        "accessPrivilege": null,
        "usePrivilege": null,
        "associatedResource": null,
        "associatedResMeta": null,
        "coupledResource": null,
        "distributionFormat": null,
        "onlineResource": null,
        "associatedPaperDOI": null
    },
    "createTime": 1648452964288,
    "updateTime": 1648452964288
    }
}
]
}
}

```

## return result

status code	status code message	description	data mode
200	<a href="#">OK</a>	success	Inline

## return structure

status code **200**

name	type	constraint	description
» code	integer	none	Status Code
» message	string	none	Status Information
» data	object	none	Dataset Information
»» total	integer	none	The number of data records
»» list	[object]	none	Dataset list
»»» id	integer	none	Dataset ID
»»» uid	string	none	Dataset UID
»»» name	string	none	Unit name
»»» type	string	none	Dataset Type
»»» userId	string	none	Userid
»»» privilege	string	none	AccessPermission,Value= public, private
»»» isOfficial	integer	none	Is it official
»»» browseGraph	null	none	BrowseGraph
»»» keyword	string	none	Keyword
»»» author	object	none	Author
»»»» metaDataStandardName	null	none	Standard metadata name
»»»» metaDataIdentifier	null	none	Metadata definition
»»»» createTimeStamp	integer	none	Metadata create timestamp
»»»» authorName	string	none	Author name
»»»» authorEmail	string	none	Author email
»»»» responsible	null	none	Responsible
»»»» responsibleRegion	string	none	Responsibile region
»»»» responsibleEmail	null	none	Responsible Email
»»»» announcement	null	none	Declaration
»»»» dataProtectionPeriod	null	none	Data protection cycle
»»»» license	string! null	none	License
»»» description	object	none	Description
»»»» title	string	none	Title
»»»» alias	string	none	Alias
»»»» edition	string	none	Version
»»»» language	string	none	Language
»»»» encoding	string	none	Encoding
»»»» keyword	string! null	none	Keyword
»»»» abstractInfo	string	none	Abstract information
»»»» topicCategory	string	none	Topic category
»»»» additionalDoc	string	none	Additional documentation
»»»» lineage	string! null	none	Data lineage



name	type	constraint	description
»»»» source	null	none	Source
»»»» date	string 'null	none	Date
»»»» dataUrl	string 'null	none	Data address
»»» temporal	object	none	Time
»»»» geologicTime	string	none	Geologic time, e.g, Quaternary
»»»» geologicAge	null	none	Geological age, e.g,1, 100 to 200.2
»»»» base	integer	none	The earliest possible time point, e.g,150.3
»»»» top	integer	none	The latest possible time point, e.g,10.2
»»»» gtsVersion	string	none	Geological Age version, e.g,INTERNATIONAL CHRONOSTRATIGRAPHIC CHART v2021/05
»»» space	object	none	Spatial Information
»»»» type	null	none	Type
»»»» resolution	string	none	Spatial resolution
»»»» elevation	string 'null	none	Elevation
»»»» extent	object	none	extent
»»»»» minX	integer	none	Minimum x
»»»»» maxX	integer	none	Maximum x
»»»»» minY	integer	none	Minimum y
»»»»» maxY	integer	none	Maximum y
»»»» geolIdentifier	string	none	GeolIdentifier
»»» boundaryWKT	string	none	The range of the spatial region. The value is returned in wkt format
»»» coordinateReference	string	none	coordinate Reference
»»» projection	string	none	Projection coordinate system
»»» service	object	none	Service
»»»» type	null	none	Dataset type
»»»» doi	null	none	The unique identifier of the data object
»»»» accessPrivilege	null	none	Access permissions
»»»» usePrivilege	null	none	Permission
»»»» associatedResource	null	none	Associated resources
»»»» associatedResMeta	null	none	Associated resource metadata
»»»» coupledResource	null	none	Coupling resources
»»»» distributionFormat	null	none	Format of data distribution
»»»» onlineResource	null	none	Reference resources online
»»»» associatedPaperDOI	null	none	Associated paper DOI
»»» createTime	integer	none	Created
»»» updateTime	integer	none	Update Time

## Data Query

# POST /v1.0/api/data-central/query/data/http

POST /v1.0/api/data-central/query/data/htt

http api request

Body request parmeter

```
{
  "uid": "a221f383-4a33-4936-ab8b-76e001283ac4",
  "queryParams": [
    {
      "name": "time",
      "value": 140
    },
    {
      "name": "model",
      "value": "SETON2012"
    }
  ]
}
```

## request parameter

name	location	type	necessary	description
userId	header	string	否	none
body	body	object	否	none
» uid	body	string	是	none
» queryParams	body	[object]	是	none
»» name	body	string	是	none
»» value	body	integer	是	none

return example

success

```
{
  "uid": "c68f5672-7e41-4503-b969-dc5c91a665b4",
  "queryParams": [
    {
      "name": "time",
      "value": 140
    },
    {
      "name": "points",
      "value": "95,54,142,-33"
    },
    {
      "name": "model",
      "value": "SETON2012"
    }
  ]
}
```

```
}
]
}
```

## return result

status code	status code message	description	data mode
200	<a href="#">OK</a>	success	Inline

## return structure

status code **200**

name	type	constraint	description
» uid	string	none	
» queryParams	[object]	none	
»» name	string	none	
»» value	integer	none	

# Computation Hub API v0.7.8

## Workflow Job

### POST /v1.0/api/job

POST /v1.0/api/job Create a job

Body

```
{
  "jobName": "New Interface Test - Task",
  "description": "New Interface Test - Task",
  "task": [
    {
      "taskId": "t0",
      "taskName": "fuxi-polygon feature to point",
      "toolId": "06be3ead-1f65-4765-b6ea-73fac365baaa",
      "args": [
        {
          "paramName": "polyShapefile",
          "value": "fuxi://shapefile/USA_states_adm1.shp"
        },
        {
          "paramName": "pointShapefile",
          "value": "fuxi://shapefile/USA_states_adm1_topoint.shp"
        }
      ]
    },
    {
      "upstream": []
    }
  ]
}
```

```
]
}
```

## request parameter

name	location	type	necessary	description
AccessKey	header	string	no	AccessKey
SecretKey	header	string	no	SecretKey
UserID	header	string	no	UserID
rzpj	header	string	no	Certificate
body	body	object	no	none

return example

## return result

status code	status code message	description	data mode
200	<a href="#">OK</a>	success	Inline

## return structure

status code **200**

## DELETE /v1.0/job/{jobId}

DELETE /v1.0/job/{toolId}

## request parameter

name	location	type	necessary	description
jobId	path	string	yes	none
rzpj	header	string	no	none

return example

success

```
{
  "success": true
}
```

## return result

status code	status code message	description	data mode
200	<a href="#">OK</a>	success	Inline

## return structure

status code **200**

## GET /v1.0/job/{jobId}

GET /v1.0/job/{toolId}

## request parameter

name	location	type	necessary	description
jobId	path	string	yes	none
rzpj	header	string	yes	none

return example

success

```
{
  "jobId": "db38561f-c28e-4da4-af11-ef1dc8d71d5b",
  "jobName": "crust_0-23Ma-job03",
  "description": "",
  "owner": "99bca0f1-4fea-4cdc-bbc4-f14d4813fb9a",
  "status": "success",
  "tasks": [
    {
      "taskId": "t0",
      "taskName": "Inverse Distance Weighting Interpolation",
      "toolId": "399c4616-5436-47c1-9f3f-a418bb7c35d8",
      "args": [
        {
          "paramName": "path_data_points",
          "value": "DDE://crust/thickness/0_23Ma.csv",
          "attributes": {
            "isOutputParam": false,
            "fileType": "FILE",
            "multiple": false
          }
        }
      ],
    },
    {
      "paramName": "x_field_id",
      "value": 2,
      "paramAttributes": {
        "name": "x_field_id",
        "dataType": "NUMBER",
        "description": "x坐标列在输入文件中的列号索引",
        "engDescription": "Index of x coordinate",
      }
    }
  ]
}
```

```

        "required": false,
        "in": 0,
        "default": "0"
    }
},
{
    "paramName": "y_field_id",
    "value": "1",
    "paramAttributes": {
        "name": "y_field_id",
        "dataType": "NUMBER",
        "description": "Y坐标列在输入文件中的列号索引",
        "engDescription": "Index of y coordinate",
        "required": false,
        "in": 0,
        "default": "1"
    }
},
{
    "paramName": "z_value_id",
    "value": 0,
    "paramAttributes": {
        "name": "z_value_id",
        "dataType": "NUMBER",
        "description": "待插值属性列在输入文件中的列号索引",
        "engDescription": "Index of z-value coordinate",
        "required": true,
        "in": 0,
        "default": "2"
    }
},
{
    "paramName": "radius",
    "value": "",
    "paramAttributes": {
        "name": "radius",
        "dataType": "NUMBER",
        "description": "在该半径范围内进行插值，默认为全局，填写示例：-r 100",
        "engDescription": "Search radius in given range, default to be
global, example: -r 100",
        "required": false,
        "in": 0,
        "default": ""
    }
},
{
    "paramName": "max_neighbors",
    "value": "12",
    "paramAttributes": {
        "name": "max_neighbors",
        "dataType": "NUMBER",
        "description": "插值时中心像元搜索到最多点数",
        "engDescription": "Maximum Number of neighbor points",
        "required": false,
        "in": 0,

```

```

        "default": "12"
    }
},
{
    "paramName": "x_cell_size",
    "value": 0.1,
    "paramAttributes": {
        "name": "x_cell_size",
        "dataType": "NUMBER",
        "description": "栅格X轴大小",
        "engDescription": "x-axis cell size",
        "required": true,
        "in": 0,
        "default": ""
    }
},
{
    "paramName": "y_cell_size",
    "value": 0.1,
    "paramAttributes": {
        "name": "y_cell_size",
        "dataType": "NUMBER",
        "description": "栅格Y轴大小",
        "engDescription": "y-axis cell size",
        "required": true,
        "in": 0,
        "default": ""
    }
},
{
    "paramName": "extent",
    "value": "80,92,29,32",
    "paramAttributes": {
        "name": "extent",
        "dataType": "STRING",
        "description": "可以指定输出范围，默认是输入shp的范围。填写示例：xmin, xmax, ymin, ymax",
        "engDescription": "Spatial extent of output results, default to be the extent of input shapefile, example: xmin, xmax, ymin, ymax",
        "required": false,
        "in": 0,
        "default": ""
    }
},
{
    "paramName": "path_result",
    "value": "DDE://crust/thickness/0_23Ma.tif",
    "attributes": {
        "isOutputParam": true,
        "fileType": "FILE",
        "multiple": false
    }
}
],
"upstream": [],

```

```
        "x": 392.1307,  
        "y": 262  
    }  
],  
    "startDate": "2022-06-29 19:00:14.290424-08",  
    "endDate": "2022-06-29 19:00:29.592692-08"  
}
```

## return result

status code	status code message	description	data mode
200	<a href="#">OK</a>	success	Inline

## return structure

status code **200**

name	type	constraint	description
» jobId	string	none	
» jobName	string	none	
» description	string	none	
» owner	string	none	
» status	string	none	
» tasks	[object]	none	
»» taskId	string	none	
»» taskName	string	none	
»» toolId	string	none	



name	type	constraint	description
»» args	[object]	none	
»»» paramName	string	none	
»»» value	string	none	
»»» attributes	object	none	
»»»» isOutputParam	boolean	none	
»»»» fileType	string	none	
»»»» multiple	boolean	none	
»»» paramAttributes	object	none	
»»»» name	string	none	
»»»» dataType	string	none	
»»»» description	string	none	
»»»» engDescription	string	none	
»»»» required	boolean	none	
»»»» in	integer	none	
»»»» default	string	none	
»» upstream	[string]	none	
»» x	number	none	
»» y	integer	none	
» startDate	string	none	
» endDate	string	none	

## GET /v1.0/job

GET /v1.0/job

### request parameter

name	location	type	necessary	description
page	query	string	yes	none
pageSize	query	string	yes	none
rzpj	header	string	yes	none

return example

```
{
  "jobCount": 3,
  "jobs": [
    {
      "jobId": "db38561f-c28e-4da4-af11-ef1dc8d71d5b",
      "jobName": "crust_0-23Ma-job03",
      "description": "",
      "startTime": 1656557873531,
      "owner": "99bca0f1-4fea-4cdc-bbc4-f14d4813fb9a",
      "jobDetail": "{}",
      "status": "success",
      "jobExpiredDelete": false,
      "startDate": "2022-06-29 19:00:14.290424-08",
      "endDate": "2022-06-29 19:00:29.592692-08"
    },
    {
      "jobId": "20860c3e-ecba-47a4-b0d0-2de48aae5561",
      "jobName": "crust_0-23Ma-job02 ",
      "description": "",
      "startTime": 1656508437475,
      "owner": "99bca0f1-4fea-4cdc-bbc4-f14d4813fb9a",
      "jobDetail": "{}",
      "status": "failed",
      "jobExpiredDelete": false,
      "startDate": "2022-06-29 05:14:26.549899-08",
      "endDate": "2022-06-29 05:19:55.907718-08"
    },
    {
      "jobId": "7642d78d-8968-41fa-bf51-03c1db6422bf",
      "jobName": "crust_0-23Ma",
      "description": "",
      "startTime": 1656507611172,
      "owner": "99bca0f1-4fea-4cdc-bbc4-f14d4813fb9a",
      "jobDetail": "{}",
      "status": "failed",
      "jobExpiredDelete": false,
      "startDate": "2022-06-29 05:04:26.223108-08",
      "endDate": "2022-06-29 05:09:59.446602-08"
    }
  ]
}
```

## return result

status code	status code message	description	data mode
200	<a href="#">OK</a>	success	Inline

return structure

status code 200

name	type	constraint	description
» jobCount	integer	none	
» jobs	[object]	none	
»» jobId	string	none	
»» jobName	string	none	
»» description	string	none	
»» startTime	integer	none	
»» owner	string	none	
»» jobDetail	string	none	
»» status	string	none	
»» jobExpiredDelete	boolean	none	
»» startDate	string	none	
»» endDate	string	none	

Workflow Tool

GET /v1.0/toolsv2/{id}

GET /v1.0/toolsv2/{toolId}

request parameter

name	location	type	necessary	description
toolId	path	string	yes	none
rzpj	header	string	yes	Certificate

return example

success

```
{
  "id": "351a8f1a-3c30-477c-a583-c490d055e6a3",
  "engName": "smoothing",
  "name": "矢量简化与平滑",
  "usage": "smoothing-对矢量数据进行简化和平滑锐角",
  "engUsage": "Simplify and smooth sharp angles on vector data.",
  "details": "按照某种规则在保证矢量整体形状的情况下删减部分图形节点，并圆滑边界的棱角和节点",
}
```

```
"engDetails": "According to some rules to ensure the overall shape of the
vector to delete part of the graphics nodes, and round the edges and nodes of the
boundary.",
"frameworkType": "docker",
"imageName": "zjugis-fuxi/gvs:v0.1",
"reference":
"https://www.osgeo.cn/gdal/programs/vector_common_options.html#vector-common-
options | https://gis.stackexchange.com/questions/122736/making-buffer-from-line-
using-gdal-and-python",
"className": "/Scene/Paleogeographic reconstruction/Vectorization/Smoothing",
"date": null,
"versionId": "0.1",
"groupId": "SWJTU",
"authorId": "Zhilin Li",
"email": null,
"tagNames": [
  "Vectorization"
],
"tags": [
  {
    "tagName": "Vectorization",
    "tagType": "TOOL"
  }
],
"inputData": [
  {
    "name": "path_data_vec",
    "fileStored": "obs",
    "fileType": "FILE",
    "suffix": [
      "shp"
    ],
    "description": "矢量岩相板块数据",
    "engDescription": "Vector petrographic plate data",
    "displayType": "FILE",
    "multiple": false
  }
],
"outputData": [
  {
    "name": "vec_smooth_result",
    "fileStored": "obs",
    "fileType": "FILE",
    "suffix": [
      "shp"
    ],
    "description": "简化与平滑后矢量数据",
    "engDescription": "Vector data after simplification and smoothing",
    "displayType": "FILE",
    "multiple": false
  }
],
"parameters": [
  {
    "name": "bdistance",
```

```

        "dataType": "NUMBER",
        "description": "可以根据影像分辨率设定，不能低于影像分辨率",
        "engDescription": "Can be set according to the image resolution, not lower
than the image resolution",
        "required": true,
        "in": 0,
        "default": "0.3"
    }
],
"test": [
    {
        "in": [
            {
                "name": "path_data_vec",
                "value": "vec_test.shp",
                "desc": ""
            }
        ],
        "out": [],
        "cmdLine": "python smoothing.py -p ${path_data_vec} -o ${vec_smooth_result}
-b ${bdistance}"
    }
],
"updateTime": 1656494036490,
"publishTime": 1656494036490,
"privilege": "PUBLIC",
"mdPath": "https://deepengine.oss-cn-
hangzhou.aliyuncs.com/workspace/ADMIN/share/markdown/smoothing.md",
"atomType": null,
"official": "OFFICIAL",
"isGPUSupport": false
}

```

## return result

status code	status code message	description	data mode
200	<a href="#">OK</a>	success	Inline

## return structure

status code **200**

name	type	constraint	description
» id	string	none	none
» engName	string	none	Model describe in en
» name	string	none	Name
» usage	string	none	Usage
» engUsage	string	none	Usage describe in en
» details	string	none	none
» engDetails	string	none	none
» frameworkType	string	none	Framework used
» imageName	string	none	none
» reference	string	none	none
» className	string	none	none
» date	null	none	none
» versionId	string	none	none
» groupId	string	none	none
» authorId	string	none	none
» email	null	none	none
» tagNames	[string]	none	none
» tags	[object]	none	none
»» tagName	string	none	none
»» tagType	string	none	none
» inputData	[object]	none	none
»» name	string	none	none

name	type	constraint	description
»» fileStored	string	none	none
»» fileType	string	none	none
»» suffix	[string]	none	none
»» description	string	none	none
»» engDescription	string	none	none
»» displayType	string	none	none
»» multiple	boolean	none	none
» outputData	[object]	none	none
»» name	string	none	none
»» fileStored	string	none	none
»» fileType	string	none	none
»» suffix	[string]	none	none
»» description	string	none	none
»» engDescription	string	none	none
»» displayType	string	none	none
»» multiple	boolean	none	none
» parameters	[object]	none	none
»» name	string	none	none
»» dataType	string	none	none
»» description	string	none	none
»» engDescription	string	none	none
»» required	boolean	none	none
»» in	integer	none	none
»» default	string	none	none
» test	[object]	none	none
»» in	[object]	none	none
»»» name	string	none	none
»»» value	string	none	none
»»» desc	string	none	none

name	type	constraint	description
»» out	[string]	none	none
»» cmdLine	string	none	none
» updateTime	integer	none	none
» publishTime	integer	none	none
» privilege	string	none	none
» mdPath	string	none	none
» atomType	null	none	none
» official	string	none	Is it official
» isGPUSupport	boolean	none	none

## GET /v1.0/toolsv2/getTools

GET /v1.0/toolsv2/getTools

### request parameter

name	location	type	necessary	description
algebra	query	string	yes	none
start	query	string	yes	none
length	query	string	yes	none
path	query	string	no	toolpath
keyword	query	string	no	keyword
rzpj	header	string	no	Certificate

return example

success

```
{
  "totalCount": 2,
  "tools": [
    {
      "id": "e218a423-6239-4e6b-9fe4-6f732ccf67bf",
      "engName": "Select Time",
      "name": "筛选时间范围",
    }
  ]
}
```



```
"usage": "筛选指定时间范围的数据",
"engUsage": "Filter data for a specified time range.",
"details": "根据起始时间对指定字段进行筛选",
"engDetails": "Filter the specified fields based on the start and end
date.",
"frameworkType": "docker",
"imageName": "zjugis-fuxi/pydde:0.2",
"reference": null,
"className": "/Data Management/Filter/Select Time",
"date": null,
"versionId": "0.1",
"groupId": "Central South University",
"authorId": "Minghui Li",
"email": null,
"tagNames": [
  "Filter"
],
"tags": [
  {
    "tagName": "Filter",
    "tagType": "TOOL"
  }
],
"inputData": [
  {
    "name": "input",
    "fileStored": "obs",
    "fileType": "FILE",
    "suffix": [
      "csv",
      "shp",
      "xls",
      "xlsx"
    ],
    "description": "被筛选数据",
    "engDescription": "Filtered data",
    "displayType": "FILE",
    "multiple": false
  }
],
"outputData": [
  {
    "name": "output",
    "fileStored": "obs",
    "fileType": "FILE",
    "suffix": [
      "csv",
      "shp",
      "xls",
      "xlsx"
    ],
    "description": "筛选时间范围结果",
    "engDescription": "Filter results.",
    "displayType": "FILE",
    "multiple": false
  }
]
```

```

    }
  ],
  "parameters": [
    {
      "name": "fields",
      "dataType": "STRING",
      "description": "被筛选的字段名",
      "engDescription": "Filtered field name",
      "required": true,
      "in": 0,
      "default": ""
    },
    {
      "name": "start_date",
      "dataType": "STRING",
      "description": "时间范围开始时间",
      "engDescription": "Time range start time",
      "required": true,
      "in": 0,
      "default": ""
    },
    {
      "name": "end_date",
      "dataType": "STRING",
      "description": "时间范围结束时间",
      "engDescription": "Time range end time",
      "required": true,
      "in": 0,
      "default": ""
    },
    {
      "name": "greater_or_equal",
      "dataType": "STRING",
      "description": "是否大于等于。默认为否，如需大于等于则填写\"--goe\"",
      "engDescription": "Whether it is greater than or equal to. The default value is No. if it needs to be greater than or equal to, fill in \"--goe\"",
      "required": false,
      "in": 0,
      "default": ""
    },
    {
      "name": "lesser_or_equal",
      "dataType": "STRING",
      "description": "是否小于等于。默认为否，如否则填写\"--loe\"",
      "engDescription": "Whether it is less than or equal to. The default value is yes. Otherwise, fill in \"--loe\"",
      "required": false,
      "in": 0,
      "default": ""
    },
    {
      "name": "fields_dateformat",
      "dataType": "STRING",
      "description": "被筛选的字段时间格式",
      "engDescription": "Filtered field time format",

```

```

        "required": true,
        "in": 0,
        "default": ""
    },
    {
        "name": "express_dateformat",
        "dataType": "STRING",
        "description": "开始/结束时间格式",
        "engDescription": "Start / end time format",
        "required": true,
        "in": 0,
        "default": "%Y-%m-%d %H:%M:%S"
    }
],
"test": [
    {
        "in": [
            {
                "name": "input",
                "value": "theftcrime2019.shp, theftcrime2019.csv,
theftcrime2019.xls, theftcrime2019.xlsx",
                "desc": ""
            }
        ],
        "out": [],
        "cmdLine": "python demo-tmp_sel_time.py --input ${input} --fields
${fields} --startdate ${start_date} --enddate ${end_date} ${greater_or_equal}
${lesser_or_equal} --fieldsdateformat ${fields_dateformat} --expressdateformat
${express_dateformat} --output ${output}"
    }
],
"updateTime": 1652442840887,
"publishTime": 1651304266466,
"privilege": "PUBLIC",
"mdPath": "https://deepengine.oss-cn-
hangzhou.aliyuncs.com/workspace/ADMIN/share/markdown/Select_Time.md",
"atomType": null,
"official": "OFFICIAL",
"isGPUSupport": false
},
{
    "id": "aa3181e8-b1cf-4e40-bcb0-6208c0e61768",
    "engName": "Time Series Probability Plot",
    "name": "Time Series Probability Plot",
    "usage": "时间序列概率分布图",
    "engUsage": "Conduct Detrital Zircons age analysis based on the time series
probability plot. ",
    "details": "时间序列概率分布图",
    "engDetails": "The model uses matplotlib to render data and set styles.",
    "frameworkType": "docker",
    "imageName": "zjugis-fuxi/detritalpy:0.8",
    "reference": "Sharman, G. R., Sharman, J. P., & Sylvester, Z. (2018).
detritalPy: A Python••based toolset for visualizing and analysing detrital
geo••thermochronologic data. The Depositional Record, 4(2), 202-215.",

```

```
"className": "/Scene/Geological Analysis/Zircon Analysis/Time Series
Probability Plot",
"date": "",
"versionId": "0.4",
"groupId": "Zhejiang University",
"authorId": "Zhenhong Du",
"email": "",
"tagNames": [
  "Onesediment"
],
"tags": [],
"inputData": [
  {
    "name": "input",
    "fileStored": "obs",
    "fileType": "FILE",
    "suffix": [
      "xlsx"
    ],
    "description": "输入表格数据",
    "engDescription": "input table data",
    "properties": [],
    "multiple": false
  }
],
"outputData": [
  {
    "name": "output",
    "fileStored": "obs",
    "fileType": "FILE",
    "suffix": [
      "pdf"
    ],
    "description": "输出图像",
    "engDescription": "result plot",
    "properties": [],
    "displayType": "FILE",
    "multiple": false
  }
],
"parameters": [
  {
    "name": "agg_field",
    "dataType": "STRING",
    "description": "聚合作图的字段名",
    "engDescription": "the field to aggregate",
    "required": true,
    "in": 0,
    "enums": [],
    "default": ""
  },
  {
    "name": "time_range",
    "dataType": "STRING",
    "description": "时间序列分析时间段 (Ma) ; •[0,3000]",
```

```
"engDescription": "time range for time series (Ma), e.g.: [0, 3000]",
"required": true,
"in": 0,
"enums": [
  "1"
],
"default": ""
},
{
  "name": "if_subplot",
  "dataType": "STRING",
  "description": "是否分为子图: yes, no",
  "engDescription": "if to separate as subplots, e.g.: yes, no",
  "required": true,
  "in": 0,
  "enums": [
    "1"
  ],
  "default": ""
},
{
  "name": "plot_type",
  "dataType": "STRING",
  "description": "绘图类型: KDE, PDP",
  "engDescription": "plot type, e.g.: KDE, PDP",
  "required": true,
  "in": 0,
  "enums": [
    "1"
  ],
  "default": ""
},
{
  "name": "if_CI",
  "dataType": "STRING",
  "description": "是否画置信区间: yes, no",
  "engDescription": "if plot confidential interval, e.g.: yes, no",
  "required": true,
  "in": 0,
  "enums": [
    "1"
  ],
  "default": ""
},
{
  "name": "if_hist",
  "dataType": "STRING",
  "description": "是否画直方图: yes, no",
  "engDescription": "if plot histogram, e.g.: yes, no",
  "required": true,
  "in": 0,
  "enums": [
    "1"
  ],
  "default": ""
}
```

```

    },
    {
      "name": "in_agebins",
      "dataType": "STRING",
      "description": "年龄划分子区间; ",
      "engDescription": "age bins for coloring",
      "required": true,
      "in": 0,
      "enums": [
        "1"
      ],
      "default": ""
    },
    {
      "name": "in_agebinsc",
      "dataType": "STRING",
      "description": "年龄划分子区间对应的颜色; ",
      "engDescription": "colors for age bins",
      "required": true,
      "in": 0,
      "enums": [
        "1"
      ],
      "default": ""
    },
    {
      "name": "plot_size",
      "dataType": "STRING",
      "description": "图片大小, 宽高1高2: [10,4,5]",
      "engDescription": "size of figures, e.g.: [width, height1, height2]",
      "required": true,
      "in": 0,
      "enums": [
        "1"
      ],
      "default": ""
    }
  ],
  "test": [
    {
      "in": [],
      "out": [],
      "cmdLine": "python /home/plotAll.py ${input} ${agg_field} ${time_range}
${if_subplot} ${plot_type} ${if_CI} ${if_hist} ${in_agebins} ${in_agebinsc}
${plot_size} ${output}"
    }
  ],
  "updateTime": 1642930000000,
  "publishTime": 1641490000000,
  "privilege": "PUBLIC",
  "mdPath": "https://deepengine.oss-cn-
hangzhou.aliyuncs.com/workspace/ADMIN/share/markdown/Time_Series_Probability_Plo
t.md",
  "atomType": null,
  "official": "OFFICIAL",

```

```
    "isGPUSupport": false
  }
]
}
```

## return result

status code	status code message	description	data mode
200	<a href="#">OK</a>	success	Inline

## return structure

status code **200**

name	type	constraint	description
» totalCount	integer	none	Number of tools
» tools	[object]	none	none
»» id	string	none	none
»» engName	string	none	none
»» name	string	none	none
»» usage	string	none	none
»» engUsage	string	none	none

name	type	constraint	description
»» details	string	none	none
»» engDetails	string	none	none
»» frameworkType	string	none	none
»» imageName	string	none	none
»» reference	string  null	none	none
»» className	string	none	none
»» date	string  null	none	none
»» versionId	string	none	none
»» groupId	string	none	none
»» authorId	string	none	none
»» email	string  null	none	none
»» tagNames	[string]	none	none
»» tags	[object]	none	none
»»» tagName	string	none	none
»»» tagType	string	none	none
»» inputData	[object]	none	none
»»» name	string	none	none
»»» fileStored	string	none	none
»»» fileType	string	none	none
»»» suffix	[string]	none	none
»»» description	string	none	none
»»» engDescription	string	none	none
»»» displayType	string	none	none
»»» multiple	boolean	none	none
»»» properties	[string]	none	none
»» outputData	[object]	none	none
»»» name	string	none	none
»»» fileStored	string	none	none
»»» fileType	string	none	none



name	type	constraint	description
»»» suffix	[string]	none	none
»»» description	string	none	none
»»» engDescription	string	none	none
»»» displayType	string	none	none
»»» multiple	boolean	none	none
»»» properties	[string]	none	none
»» parameters	[object]	none	none
»»» name	string	none	none
»»» dataType	string	none	none
»»» description	string	none	none
»»» engDescription	string	none	none
»»» required	boolean	none	none
»»» in	integer	none	none
»»» default	string	none	none
»»» enums	[string]	none	none
»» test	[object]	none	none
»»» in	[object]	none	none
»»»» name	string	none	none
»»»» value	string	none	none
»»»» desc	string	none	none
»»» out	[string]	none	none
»»» cmdLine	string	none	none
»» updateTime	integer	none	none
»» publishTime	integer	none	none
»» privilege	string	none	none
»» mdPath	string	none	none
»» atomType	null	none	none
»» official	string	none	Is it official
»» isGPUSupport	boolean	none	none

# Workflow Monitor

## GET /v1.0/atlas/sls/getSlsLogs

GET /v1.0/atlas/sls/getSlsLogs

### request parameter

name	location	type	necessary	description
taskId	query	string	yes	none
jobId	query	string	yes	none
rzpj	header	string	no	Certificate

return example

success

```
{
  "msg": "query was successful",
  "code": 200,
  "data": [
    "[2022-06-30 03:00:14,735] {logging_mixin.py:109} INFO - Running
    <TaskInstance: db38561f-c28e-4da4-af11-ef1dc8d71d5b.t0 2022-06-
    29T19:00:11.748858+00:00 [running]> on host dde-airflow-scheduler-0.dde-airflow-
    scheduler.airflow.svc.cluster.local",
    "AIRFLOW_CTX_DAG_EMAIL=airflow@example.com",
    "AIRFLOW_CTX_DAG_ID=db38561f-c28e-4da4-af11-ef1dc8d71d5b",
    "AIRFLOW_CTX_EXECUTION_DATE=2022-06-29T19:00:11.748858+00:00",
    "[2022-06-30 03:00:14,857] {kubernetes_pod.py:366} INFO - creating pod with
    labels {'dag_id': 'db38561f-c28e-4da4-af11-ef1dc8d71d5b', 'task_id': 't0',
    'execution_date': '2022-06-29T190011.7488580000-e9f114728', 'try_number': '1'}
    and launcher <airflow.providers.cncf.kubernetes.utils.pod_launcher.PodLauncher
    object at 0x7f8e7760ef10>",
    "[2022-06-30 03:00:14,895] {pod_launcher.py:128} WARNING - Pod not yet
    started: t0.a3c254bf66814d448041a6c87bb0bc8c",
    "[2022-06-30 03:00:27,190] {pod_launcher.py:149} INFO - warnings.warn(",
    "[2022-06-30 03:00:27,191] {pod_launcher.py:149} INFO -
    Namespace(extent='80,92,29,32', n=12, output='/volume/workspace/99bca0f1-4fea-
    4cdc-bbc4-f14d4813fb9a/userData/crust/thickness/0_23Ma.tif',
    point='/volume/workspace/99bca0f1-4fea-4cdc-bbc4-
    f14d4813fb9a/userData/crust/thickness/0_23Ma.csv', r=None, xid=2, xstep=0.1,
    yid=1, ystep=0.1, zid=0)",
    "[2022-06-30 03:00:27,191] {pod_launcher.py:149} INFO - inverse distance
    weighting interpolation finished.",
    "[2022-06-30 03:00:29,361] {local_task_job.py:151} INFO - Task exited with
    return code 0",
    "[2022-06-30 03:00:14,599] {taskinstance.py:903} INFO - Dependencies all met
    for <TaskInstance: db38561f-c28e-4da4-af11-ef1dc8d71d5b.t0 2022-06-
    29T19:00:11.748858+00:00 [queued]>",
    "[2022-06-30 03:00:14,621] {taskinstance.py:1095} INFO - ",
    "[2022-06-30 03:00:14,621] {taskinstance.py:1096} INFO - Starting attempt 1
    of 2",
```

```
"-----",
"[2022-06-30 03:00:14,633] {standard_task_runner.py:52} INFO - Started
process 24256 to run task",
"[2022-06-30 03:00:14,639] {standard_task_runner.py:77} INFO - Job 360:
subtask t0"
]
}
```

## return result

status code	status code message	description	data mode
200	<a href="#">OK</a>	success	Inline

## return structure

status code **200**

name	type	constraint	description
» msg	string	none	Status msg
» code	integer	none	Status code
» data	[string]	none	none

## GET /v1.0/atlas/task/getTaskIdByState

GET /v1.0/atlas/task/getTaskIdByState

dag\_id return the corresponding task\_id and state.

## request parameter

name	location	type	necessary	description
dagId	query	string	yes	none
rzpj	header	string	yes	Certificate
Content-Type	header	string	yes	none

return example

success

```
[
  {
    "taskId": "t1",
    "state": "failed"
  },
  {
    "taskId": "t2",
    "state": "failed"
  }
]
```

```
},
{
  "taskId": "t0",
  "state": "upstream_failed"
}
]
```

## return result

status code	status code message	description	data mode
200	<a href="#">OK</a>	success	Inline

## return structure

status code **200**

name	type	constraint	description
» taskId	string	none	none
» state	string	none	none

# Knowledge Hub API v0.7.8

## GET /geoopenkg/api/search/compound

Search based on specified search criteria

## request parameter

name	location	type	necessary	description
keyword	query	string	no	Search keywords
isPrecise	query	string	no	Is it an exact query
containInstance	query	string	no	Whether the instance is included
source	query	string	no	SOURCE, Value = BO4GK、GAKG、GPKG, Separate multiple values with commas (,)
discipline	query	string	no	discipline, Separate different disciplines with commas (,)
pageNum	query	string	no	The number of pages. Default value: 1
pageSize	query	string	no	The number of entries to return on each page. Default value: 10

return example

```

{
  "code": 200,
  "message": "success",
  "data": {
    "total": 99,
    "GPKG": {
      "total": 77,
      "rows": [
        {
          "name": "Spatial Scale",
          "description": "The spatial scale depends on the cause of the
chemostratigraphic index/marker being local, regional, basinal, and global, based
on which, the chemozone recognized could be correlated at an appropriate
scale.",
          "source": "GPKG",
          "id": 1262,
          "discipline": 1,
          "label": "Class",
          "uri": "Spatial Scale"
        },
        {
          "name": "Spatial resolution_1",
          "description": "The beam size of focused primary beam.",
          "source": "GPKG",
          "id": 28911,
          "discipline": 3,
          "label": "Class",
          "uri": "Spatial resolution_1"
        },
        {
          "name": "Caprock spatial area",
          "description": "The spatial area of caprock.Cover
distribution range",
          "source": "GPKG",
          "id": 31958,
          "discipline": 16,
          "label": "Class",
          "uri": "Caprock spatial area"
        },
        {
          "name": "Spatial filters",
          "description": "The spatial filtering is a method of image
filtering by convolution operation based on the spatial relationship between
pixels and surrounding neighborhood pixels.",
          "source": "GPKG",
          "id": 32283,
          "discipline": 12,
          "label": "Class",
          "uri": "Spatial filters"
        },
        {
          "name": "Gravity spatial variation",

```

```

        "description": " The gravity varies from the equator to the
poles of rotation by about 0.5%, changing by slightly more than 5 Gal from
approximately 978 Gal at the equator to 983 Gal at the poles. First, one more
important factor which accounts for more than 3 of the 5 Gal, is the change in
the centrifugal force over the Earth's surface caused by the Earth's rotation
around its axis. The second factor of the planetary change in gravity (about
6Gal) over the Earth' s surface is the variation in the radius from the equator
to the poles. Finally, the subsurface mass with density contrast will cause
several hundred mGal.",
        "source": "GPKG",
        "id": 32351,
        "discipline": 12,
        "label": "Class",
        "uri": "Gravity spatial variation"
    },
    {
        "name": "Classified by spatial distribution
characteristics",
        "description": "According to the characteristics of spatial
distribution, map symbols are divided into point symbols, linear symbols and
Planar symbols.",
        "source": "GPKG",
        "id": 39544,
        "discipline": 13,
        "label": "Class",
        "uri": "Classified by spatial distribution characteristics"
    },
    {
        "name": "Spatial oblique Mercator projection",
        "description": "An oblique pseudo-cylindrical projection in
which the central axis of a cylinder is perpendicular to the plane of the
satellite orbit. It is suitable for cartography of narrow areas extending along
the direction of satellite orbit.",
        "source": "GPKG",
        "id": 39664,
        "discipline": 13,
        "label": "Class",
        "uri": "Spatial oblique Mercator projection"
    },
    {
        "name": "Spatial data reference information",
        "description": "Spatial Reference Information -- the
description of the reference frame for, and the means to encode, coordinates in
the data set.",
        "source": "GPKG",
        "id": 40091,
        "discipline": 13,
        "label": "Class",
        "uri": "Spatial data reference information"
    },
    {
        "name": "Spatial database",
        "description": "A spatial database is a database that is
optimized for storing and querying data that represents objects defined in a
geometric space. ",

```

```

        "source": "GPKG",
        "id": 40117,
        "discipline": 13,
        "label": "Class",
        "uri": "Spatial database"
    },
    {
        "name": "Spatial data type",
        "description": "The most general shape is represented by the
geometry described by the spatial representation system, which is a coordinate
system similar to longitude and latitude or other accepted frames.",
        "source": "GPKG",
        "id": 40118,
        "discipline": 13,
        "label": "Class",
        "uri": "Spatial data type"
    }
]
},
"GAKG": {
    "total": 3,
    "rows": [
        {
            "name": "paper",
            "label": "Class",
            "description": "Papers are often used to refer to articles
that conduct research in various academic fields and describe academic research
results.",
            "id": "1",
            "source": "GAKG",
            "discipline": "GeoScience",
            "uri": "https://www.acekg.cn/concept#paper"
        },
        {
            "name": "journal",
            "label": "ObjectProperty",
            "description": "A relationship between the paper and the
author.",
            "id": "3",
            "source": "GAKG",
            "discipline": "GeoScience",
            "uri": "https://www.acekg.cn/relation#is_written_by"
        },
        {
            "label": "Class",
            "description": "A peer-reviewed journal in which articles
published in academic journals usually involve specific disciplines.",
            "source": "GAKG",
            "discipline": "GeoScience",
            "uri": "https://www.acekg.cn/concept#journal"
        }
    ]
},
"time": 175,
"B04GK": {

```

```

"total": 22,
"rows": [
  {
    "id": "graph3_16440",
    "source": "BO4GK",
    "label": "ObjectProperty",
    "uri": "http://bo4gk.org/uso#geometry_op",
    "name": "geometry_op",
    "description": "object properties for geometry of spatial
objects",
    "discipline": "Spatial Ontology"
  },
  {
    "id": "graph3_16448",
    "source": "BO4GK",
    "label": "Class",
    "uri": "http://bo4gk.org/uso#geometry_type",
    "name": "geometry_type",
    "description": "describing the geometry type of spatial
object",
    "discipline": "Spatial Ontology"
  },
  {
    "id": "graph3_28736",
    "source": "BO4GK",
    "label": "Class",
    "uri": "http://bo4gk.org/uso#location",
    "name": "location",
    "description": "class showing where is a spatial object.",
    "discipline": "Spatial Ontology"
  },
  {
    "id": "graph3_4224",
    "source": "BO4GK",
    "label": "ObjectProperty",
    "uri": "http://bo4gk.org/uso#geometry_dp",
    "name": "geometry_dp",
    "description": "data properties for geometry of spatial
objects",
    "discipline": "Spatial Ontology"
  },
  {
    "id": "graph5_45168",
    "source": "BO4GK",
    "label": "Class",
    "uri": "http://bo4gk.org/crs#extent",
    "name": "extent",
    "description": "applicable spatial extent of a coordinate
reference system",
    "discipline": "Spatial Ontology"
  },
  {
    "id": "graph3_8248",
    "source": "BO4GK",
    "label": "ObjectProperty",

```



```

        "uri": "http://bo4gk.org/uso#has_geometry_form",
        "name": "has_geometry_form",
        "description": "form of representing the geometry of spatial
objects",
        "discipline": "Spatial Ontology"
    },
    {
        "id": "graph3_20536",
        "source": "B04GK",
        "label": "ObjectProperty",
        "uri": "http://bo4gk.org/uso#has_geometry_members",
        "name": "has_geometry_members",
        "description": "members of the combine geometry of spatial
objects",
        "discipline": "Spatial Ontology"
    },
    {
        "id": "graph3_24640",
        "source": "B04GK",
        "label": "ObjectProperty",
        "uri": "http://bo4gk.org/uso#has_geometry_type",
        "name": "has_geometry_type",
        "description": "describing type of geometric representations
of spatial objects.",
        "discipline": "Spatial Ontology"
    },
    {
        "id": "graph3_8352",
        "source": "B04GK",
        "label": "Class",
        "uri": "http://bo4gk.org/uso#location_type",
        "name": "location_type",
        "description": "the type showing the location of spatial
objects",
        "discipline": "Spatial Ontology"
    },
    {
        "id": "graph3_20640",
        "source": "B04GK",
        "label": "ObjectProperty",
        "uri": "http://bo4gk.org/uso#has_location_value",
        "name": "has_location_value",
        "description": "the value of location of a spatial object",
        "discipline": "Spatial Ontology"
    }
]
}
}
}

```

## return result

status code	status code message	description	data mode
200	<a href="#">OK</a>	success	Inline

## return structure

name	type	constraint	description
» code	integer	none	Status code
» message	string	none	Status message
» data	[string]	none	Data

# Jupyter

## GET /v1.0/api/jupyter/user

GET /v1.0/api/jupyter/user

## request parameter

name	location	type	necessary	description
page	query	string	yes	In the previous page, if you want to display the first page, use 0
pageSize	query	string	yes	Number of Entries displayed per page
rzpj	header	string	yes	Certificate

return example

success

```
{
  "jupyter": [
    {
      "userId": "DDE",
      "notebookName": "notebook1",
      "imageName": "zjugis/jupyterlab:0.31",
      "deploymentName": "notebook1",
      "serviceName": "jupyterlab-da36d413-d35e-4bfc-9562-33f2d69f54c8",
      "port": 30018,
      "resourceCPU": 600,
      "kernelCPU": 0.6,
      "resourceGPU": 600,
    }
  ]
}
```

```

        "kernelGPU": 0.6,
        "resourceMemory": 1262,
        "startTime": 1649680748007,
        "endTime": 1649695148007,
        "status": "PAUSE",
        "url": "http://47.98.212.54:30018/notebook/lab"
    },
    {
        "userId": "DDE",
        "notebookName": "notebook1",
        "imageName": "zjugis/jupyterlab:0.31",
        "deploymentName": "notebook2",
        "serviceName": "jupyterlab-da36d413-d35e-4bfc-9562-33f2d69f54c8",
        "port": 30018,
        "resourceCPU": 600,
        "kernelCPU": 0.6,
        "resourceGPU": 600,
        "kernelGPU": 0.6,
        "resourceMemory": 1262,
        "startTime": 1649680748007,
        "endTime": 1649695148007,
        "status": "PAUSE",
        "url": "http://47.98.212.54:30018/notebook/lab"
    }
],
"totalCount": 2
}

```

## return result

status code	status code message	description	data mode
200	<a href="#">OK</a>	success	Inline

## return structure

status code **200**

name	type	constraint	description
» jupyter	[object]	none	Jupyter information
»» userId	string	none	Userid
»» notebookName	string	none	Notebook name
»» imageName	string	none	Image name
»» deploymentName	string	none	Deployment name
»» serviceName	string	none	Service name
»» port	integer	none	Port
»» resourceCPU	integer	none	Resource CPU
»» kernelCPU	number	none	Kernel CPU

name	type	constraint	description
»» resourceGPU	integer	none	Resource GPU
»» kernelGPU	number	none	Kernel GPU
»» resourceMemory	integer	none	Resource memory
»» startTime	integer	none	Start time
»» endTime	integer	none	End time
»» status	string	none	Status
»» url	string	none	URL
» field1	string	none	Field
» totalCount	integer	none	Number of Users

# Earth Explorer SDK v0.7.8

## iframe代码

### 在html中添加iframe

```
<iframe id="mapview" src="http://dev.deeptime-engine.com/map/#/showcase" />
```

### 添加通信事件

```
document.getElementById('mapview').contentWindow.postMessage({
  type: EventType,
  body: EventBody
}: IFrameEvents, '*');

type IFrameEvents = AddLayerEvent | RemoveLayerEvent | MoveLayerByIdEvent |
AddPointEvent | RemovePointEvent | ComponentConfigEvent | MapConfigEvent |
CartographyEvent | OpenToolEvent;
```

### 示例代码

```
// 添加一个点
document.getElementById('mapview').contentWindow.postMessage({
  type: 'addPoint',
  body: {
    id: 'old',
    position:[120, 30] ,
    style: {
      color: '#f47920',
      pixelSize: 10,
      outlineColor: '#5f3c23',
      outlineWidth: 3
    }
  }
})
```

```
}, '*');
```

## iframe国际化

### 语言列表

```
// 简体中文
zh-CN
// 德语
de-DE
// 法语
fr-FR
// 西班牙语
es-ES
// 俄语
ru-RU
// 阿拉伯语
ar-EG
// 繁体中文
zh-TW
```

### URL方式

```
<iframe id="mapview" src="http://dev.deeptime-engine.com/map/#/showcase?
  locale=en-US" />
```

### LocalStorage方式

```
// 切换到英语环境
localStorage.setItem('locale', 'en-US');
// 切换到中文环境
localStorage.setItem('locale', 'zh-CN');
```

## 图层管理接口

### addAtom

添加拥有layerServiceInfo字段的数据Atom

### 数据格式

```
type AddAtomEvent = {
  type: 'addAtom',
  body: {
    atom: Atom;
    options?: { // 默认都为true
      show?: boolean; // 添加后是否显示
      showMessage?: boolean; // 是否显示添加成功/失败信息
      zoom?: boolean; // 添加完成后是否缩放到地图范围，
        // 栅格方式加载需设置boundary或viewport属性，否则缩放到默认范围
      topLayerId?: string; // 添加到某个id图层下方
    }
  }
}
```

```

    };
  }
}

type LayerMethod = 'COG' | 'WMS' | 'WMTS' | 'ARCGIS' | 'TMS' | 'TDT' | 'AMAP' |
'GEOJSON' | 'TDTILES' | 'NC' | 'PBF';
type LayerType = 'VECTOR' | 'TMS' | 'TDTILES' | 'NC' | 'RASTER';

type LayerStandard = 'WMTS' | 'TMS' | 'WMS' | 'COG_TIF' | 'TILES_3D' | 'PIC';
type LayerFormat = "MAPBOX_VECTOR_TILE" | "UTFGRID" | "PNG" | "JPEG" | "GEOJSON"
| "TOPOJSON" | "GIF" | "b3dm" | "i3dm" | "pnts" | "cmpt";

type LayerInfo = {
  type: LayerType; // 以后会去掉
  method: LayerMethod; // 以后会去掉
  standard: LayerStandard;
  format: LayerFormat;
  renderOptions?: any;
  url: string;
  sourceLayer: string;
  imageURL?: string;
  srs?: string;
  proLegends?: string[];
  tmsLegend?: {
    type: 'polygon' | 'line' | 'point';
    color: string;
    name: string;
  }[];
  geoJsonType?: 'point' | 'line' | 'polygon';
  // nc专用
  fields?: { // fields默认为 { lon: 'lon', lat: 'lat', U: 'U', V: 'V' }
    lon?: string;
    lat?: string;
    U?: string;
    V?: string;
  }
  valueRange?: { // valueRange默认为{ min: -100, max: 100},即UV纬度值的范围
    min?: number;
    max?: number;
  }
  offset?: { // 经纬度偏移值,默认为{ lon: 0, lat: 0, lev: 0 };
    lon?: number;
    lat?: number;
    lev?: number;
  }
}

type Atom = {
  id: number;
  uid: string;
  name: string;
  dataType: string;
  atomType: 'LAYER_SERVICE' | 'JDBC' | 'HTTP';
  userId: string;
  privilege: string;

```

```

status: string;
isOfficial: 0 | 1;
browseGraph: string;
keyword: string;
taskId?: string;
boundaryWKT: string;
coordinateReference?: string;
projection?: string;
space: {
  type?: string;
  resolution: string;
  elevation?: string;
  extent: {
    minX: number;
    maxX: number;
    minY: number;
    maxY: number;
  };
  geoIdentifier?: string;
};
temporal: {
  geologicTime: string;
  geologicAge: string;
  base: number;
  top: number;
  gtsVersion: string;
};
fields: {
  type: string;
  fieldName: string;
  description: string;
}[];
intellectualProp?: string;
license?: string;
createTime: number;
updateTime: number;
layerServiceInfo: LayerInfo;
}

```

## addLayer

添加图层，添加图层皆为异步方法，与图层相关的操作请在图层添加完毕之后进行操作

### 数据格式

```

type AddLayerEvent = {
  type: 'addLayer',
  body: {
    layer: LayerItem;
    options?: { // 默认都为true
      show?: boolean; // 添加后是否显示
      showMessage?: boolean; // 是否显示添加成功/失败信息
      zoom?: boolean; // 添加完成后是否缩放到地图范围，
                        // 栅格方式加载需设置boundary或viewport属性，否则缩放到默认范围
      topLayerId?: string; // 添加到某个id图层下方
    };
  };
}

```

```

    };
  }
}

type LayerItem = RasterLayerItem | TMSLayerItem | TMSVectorLayerItem |
VectorLayerItem | PbfLayerItem | COGLayerItem | NCLayerItem | TDTileLayerItem;

/**
 * 图层元数据基类，单纯的BasicLayer无法上图，缺少加载方式(method)，需使用具体的LayerItem
 */
type BasicLayer = {
  layerName: string;
  id: string; // 对应dataAtom uid
  url: string; // 图层url, geojson加载方式传入geojson
  headers?: Record<string, any>; // 请求头
  queryParameters?: Record<string, any>; // 可以传自定义url参数, 如token等
  boundary?: string; // 地图边界, 例:
    // POLYGON((-167.1072 32.0969,-167.1072 69.834,-104.1519
69.834,-104.1519 32.0969,-167.1072 32.0969))
  viewport?: number[]; // 地图缩放的范围, 如果没有viewport, 从boundary中计算
    // 默认为[110.60396458865515, 34.54408834959379, 15000000]
  sourceLayer?: string; // 真实图层名, wms、cog、pbf等加载方式需要此字段, 不填则取
layerName, 两者可能不一致
  proLegends?: string[]; // 用于存放专业图例的字段, 从atom的layerserviceInfo中获取
}

```

## 几种图层类型

### 栅格图层

wms/wmts/tms 服务, 天地图(tdt)/高德地图(amap)/arcgis 服务, 图片(根据boundary添加)

```

/**
 * 栅格图层元数据格式
 */
type RasterLayerItem = {
  method: 'wms' | 'wmts' | 'tms' | 'tdt' | 'amap' | 'arcgis' | 'pic';
  addTgt?: boolean; // 是否在header中添加鉴权rzpj
  legend?: TMSLegend; // TMS图层图例
  loaderInfo?: LoaderInfo;
  renderOptions?: RasterOptions;
} & BasicLayer;

type LoaderInfo = {
  srs?: string; // 'EPSG: 4326' | 'EPSG: 3857', 默认为3857
  minimumLevel?: number,
  maximumLevel?: number,
}

type TMSLegend = {
  type: 'polygon' | 'line' | 'point';
  color: string;
  name: string;
}[];

```



```

type RasterOptions = {
  alpha?: number;
  brightness?: number;
  hue?: number;
  saturation?: number;
  gamma?: number;
  contrast?: number;
};

const DefaultRasterOptions = {
  brightness: 1,
  alpha: 1,
  gamma: 1,
  saturation: 1,
  contrast: 1,
  hue: 0,
}

```

#### pic案例

```

{
  id: 'pic-1',
  layerName: 'pic-test',
  boundary: "POLYGON((-180 0,0 90,180 0,0 -90,-180 0))",
  url:"https://deepengine.oss-cn-hangzhou.aliyuncs.com/workspace/ADMIN/share/tif/000_v21144.bmp",
  method: 'pic',
}

```

#### wms案例

```

{
  id: 'wms-test',
  layerName: 'Geotectonic Map of China',
  url:"https://igss.cgs.gov.cn:6160/igs/rest/ogc/doc/MAPGIS16_20200228_ZSZ101qo/WMSserver",
  method: 'wms',
  queryParameters: {
    tk:
'eyJhbGciOiJIUzI1NiJ9.eyJhdwQiOiJlZWNmM2Q2Mi03MjJjLTJ0ZitYTMyni0lZWU1MjE5NzAzMjkiqFQ.q1e0-idNxczilHs8k1-0J1MrtL_CvB_Skx_kTRbnP4',
  },
  sourceLayer: 'MAPGIS16_20200228_ZSZ101qo',
}

```

#### 栅格图层(COG)

```

/**
 * 以cog方式加载的栅格图层元数据格式
 */
type COGLayerItem = {
  method: 'cog';
  renderOptions?: COGOptions
  minMax?: number[]; // 用于存放cog影像的数值范围

```

```

    addTgt?: boolean;
} & BasicLayer;

type COGRenderStyle = 'jet' | 'magma' | 'inferno' | 'plasma' | 'viridis' |
'RdBu_r' | 'Greens' | 'YlOrBr' | 'RdYlBu_r';

type COGOptions = {
    renderMethod?: 'SingleBand' | 'ThreeBand';
    R?: number; // 单波段渲染时取R值
    G?: number;
    B?: number;
    /**
     * 表示渲染的样式名(可选)，默认值根据layerName参数从数据库fuxi_layer_colormap_map表中获
     * 取，也可传入系统默认colormap的名称，或用户自定义colormap的id,若无默认渲染样式&用户未传入样
     * 式，默认使用jet渲染方式
     */
    renderStyle?: 'jet' | 'magma' | 'inferno' | 'plasma' | 'viridis' | 'RdBu_r' |
'Greens' | 'YlOrBr' | 'RdYlBu_r' | string;
    /**
     * 自定义的当前cog样式，如果不为空，则renderStyle属性失效
     */
    newRender?: {
        colors: [number, string][];
        max: number;
        min: number;
        type: "discrete" | 'continuous';
    }
    /**
     * 渲染值的范围0 - 1
     */
    valueRange?: {
        min: number;
        max: number;
    }
} & RasterOptions;

const DefaultCOGOptions = {
    renderMethod: 'ThreeBand',
    R: 1,
    G: 1,
    B: 1,
    renderStyle: 'jet',
    brightness: 1,
    alpha: 1,
    gamma: 1,
    saturation: 1,
    contrast: 1,
    hue: 0,
}

```

## 矢量图层(TMS/png)

```
/**
 * 以tms方式加载的矢量图层元数据格式
 */
type TMSVectorLayerItem = {
  method: 'tms';
  layerType: 'vector';
  renderOptions?: RasterOptions;
  loaderInfo?: LoaderInfo;
} & BasicLayer;
```

### 案例

```
{
  layerName: 'tms-test',
  id: 'tms-test',
  url: "https://zjufuxi-public.oss-cn-shanghai.aliyuncs.com/tms/esac/{z}/{x}/{reverseY}.png",
  addTgt: true,
  method: "TMS",
  legend: [{ "name": "Tree cover", "type": "polygon", "color": "006400" }, {
    "name": "Shrubland", "type": "polygon", "color": "FFBB22" }, { "name":
    "Grassland", "type": "polygon", "color": "FFFF4C" }, { "name": "Cropland",
    "type": "polygon", "color": "F096FF" }, { "name": "Built-up", "type": "polygon",
    "color": "FA0000" }, { "name": "Bare / sparse vegetation", "type": "polygon",
    "color": "B4B4B4" }, { "name": "Snow and ice", "type": "polygon", "color":
    "F0F0F0" }, { "name": "Permanent water bodies", "type": "polygon", "color":
    "0064C8" }, { "name": "Herbaceous wetland", "type": "polygon", "color": "0064A0"
  }, { "name": "Mangroves", "type": "polygon", "color": "00CF75" }, { "name":
    "Moss and lichen", "type": "polygon", "color": "FAE6A0" }]
}
```

## 矢量图层(Geojson)

```
/**
 * 以geojson方式加载的矢量图层元数据格式
 */
type GeoJsonLayerItem = {
  url: string | GeoJSON.GeoJSON; // geojson链接或对象
  method: 'geojson' | 'primitive'; // primitive方式加载时不支持点cluster聚合
  layerType?: 'vector';
} & GeoJsonOptions & Omit<BasicLayer, 'url'>;

/**
 * geojson分类的渲染配置，类型较多，程序内有默认样式
 */
type GeoJsonOptions = {
  geoJsonType?: 'point',
  renderOptions?: GeoJsonCommonStyle & GeoJsonPointStyle
} | {
  geoJsonType?: 'line',
  renderOptions?: GeoJsonCommonStyle & GeoJsonLineStyle
} | {
```

```

    geoJsonType?: 'polygon',
    renderOptions?: GeoJsonCommonStyle & GeoJsonPolygonStyle
}

type RGBColor = {
  a?: number | undefined;
  b: number;
  g: number;
  r: number;
}

type GeoJsonCommonStyle = {
  symbol?: SymbolStyle; // 标签
}

type GeoJsonColor = RGBColor | string

/**
 * geojson渲染方案
 */
type GeoJsonStyle = GeoJsonCommonStyle & (GeoJsonPointStyle | GeoJsonLineStyle |
GeoJsonPolygonStyle)

/**
 * 标签渲染条件
 */
type SymbolStyle = {
  "text-field"?: string;
  "text-font"?: string;
  "text-size"?: number;
  'text-color'?: GeoJsonColor;
  'text-halo-color'?: GeoJsonColor;
  'text-halo-width'?: number;
}

/**
 * 分段和单值渲染的用户自定义样式
 */
type CustomStyle = {
  /**
   * 自定义区间/值
   */
  label: string | number | [number, number];
  /**
   * css颜色
   */
  value: string;
}[]

/**
 * 点渲染方案，共计五种
 */
type GeoJsonPointStyle = (PointSingleStyle | PointSectionStyle | PointValueStyle
| PointBubbleStyle) & {
  cluster?: ClusterOptions

```

```

} | PointHeightStyle

/**
 * 点通用渲染条件
 */
type PointCommonOptions = {
  custom?: CustomStyle;
  'circle-stroke-color'?: GeoJsonColor | undefined;
  'circle-stroke-width'?: number | undefined;
  opacity?: number;
}

/**
 * 点聚类渲染条件
 */
type ClusterOptions = {
  enable?: boolean
  pixelRange?: number
  minimumClusterSize?: number
}

type PointSingleStyle = {
  type: 'single',
  // 精灵图
  sprite?: {
    url: string;
    params?: Record<string, any>
  }
  config: {
    'label-type'?: 'vector' | 'icon';
    color?: GeoJsonColor;
    'icon-image'?: string;
    'label-size'?: number;
    'icon-size'?: number;
  } & PointCommonOptions
}

type PointSectionStyle = {
  type: 'section',
  config: {
    field?: string;
    'section-type'?: 'natural' | 'average';
    color?: string[];
    'label-size'?: number;
  } & PointCommonOptions
}

type PointValueStyle = {
  type: 'value',
  config: {
    field?: string;
    color?: string[];
    'label-size'?: number;
  } & PointCommonOptions
}

```

```

type PointBubbleStyle = {
  type: 'bubble',
  config: {
    field?: string;
    'section-type': 'natural' | 'average';
    'section-num': number;
    'label-size': number[];
    'fill-type': 'single' | 'multi';
    color?: GeoJsonColor;
    colors?: string[];
  } & PointCommonOptions
}

type PointHeightStyle = {
  type: 'height',
  config: {
    field?: string;
    'section-type'?: 'natural' | 'average';
    color?: string[];
    'radius-size'?: number;
    'height-range': [number, number];
  } & PointCommonOptions
}

/**
 * 线渲染方案，共计三种
 */
type GeoJsonLineStyle = (LineSingleStyle | LineSectionStyle | LineValueStyle)

/**
 * 线通用渲染条件
 */
type LineCommonOptions = {
  custom?: CustomStyle;
  'line-width'?: number;
  opacity?: number;
}

type LineSingleStyle = {
  type: 'single',
  config: {
    color?: GeoJsonColor;
  } & LineCommonOptions
}

type LineSectionStyle = {
  type: 'section',
  config: {
    field?: string;
    'section-type'?: 'natural' | 'average';
    color?: string[];
  } & LineCommonOptions
}

```

```

type LineValueStyle = {
  type: 'value',
  config: {
    field?: string;
    color?: string[];
  } & LineCommonOptions
}

/**
 * 面渲染方案，共计三种
 */
type GeoJsonPolygonStyle = (PolygonSingleStyle | PolygonSectionStyle |
PolygonValueStyle | PolygonHeightStyle)

/**
 * 面通用渲染条件
 */
type PolygonCommonOptions = {
  custom?: CustomStyle;
  opacity?: number;
  'outline-color'?: GeoJsonColor;
  'outline-width'?: number;
}

type PolygonSingleStyle = {
  type: 'single',
  config: {
    color?: GeoJsonColor;
  } & PolygonCommonOptions
}

type PolygonSectionStyle = {
  type: 'section',
  config: {
    field?: string;
    'section-type'?: 'natural' | 'average';
    color?: string[];
  } & PolygonCommonOptions
}

type PolygonValueStyle = {
  type: 'value',
  config: {
    field?: string;
    color?: string[];
  } & PolygonCommonOptions
}

type PolygonHeightStyle = {
  type: 'height',
  config: {
    field?: string;
    'section-type'?: 'natural' | 'average';
    color?: string[];
    'height-range': [number, number];
  }
}

```

```
    } & PolygonCommonOptions
  }
```

## 点geojson

```
{
  id: 'geojson-point',
  layerName: 'holes',
  url: "http://121.196.210.228/static/holes.json",
  method: 'geojson',
  renderOptions: {
    'label-type': 'vector',
    'color': {r: 0, g: 255, b: 255, a: 1},
    'label-size': 5,
    'icon-size': 1,
    'circle-stroke-color': {r: 255, g: 255, b: 255, a: 1},
    'circle-stroke-width': 1,
    opacity: 1,
  }
}
```

## 面geojson

```
{
  layerName: 'primitive-polygon-heat',
  id: 'primitive-polygon-heat',
  url: 'https://resource.deep-
time.org/resource/testdem/California_heat.geojson',
  method: 'primitive',
  renderOptions: {
    'color': { r: 0, g: 255, b: 255, a: 1 },
    'outline-color': { r: 255, g: 255, b: 255, a: 0.8 },
    'outline-width': 2,
    opacity: 1
  }
}
```

## 栅格图层(GeoJson/heatmap)

### 通过点geojson创建热力图

```
/**
 * 热力图图层元数据格式
 */
type HeatLayerItem = {
  url: string | GeoJSON.GeoJSON; // 点geojson链接或对象
  method: 'heat';
  renderOptions?: HeatOptions;
} & Omit<BasicLayer, 'url'>;

type HeatOptions = {
  field?: string
  config?: {
```



```

/**
 * The blur factor that will be applied to all datapoints. The higher the
 * blur factor is, the smoother the gradients will be
 * Default value: 0.85
 */
blur?: number | undefined;

/**
 * An object that represents the gradient.
 * Syntax: {[key: number in range [0,1]]: color}
 */
gradient?: string[];

/**
 * The maximal opacity the highest value in the heatmap will have. (will be
 * overridden if opacity set)
 * Default value: 0.6
 */
maxOpacity?: number | undefined;

/**
 * The minimum opacity the lowest value in the heatmap will have (will be
 * overridden if opacity set)
 */
minOpacity?: number | undefined;

/**
 * A global opacity for the whole heatmap. This overrides maxOpacity and
 * minOpacity if set
 * Default value: 0.6
 */
opacity?: number | undefined;

/**
 * The radius each datapoint will have (if not specified on the datapoint
 * itself)
 */
radius?: number | undefined;
},
autoRadius?: boolean
}

```

## 案例

```

{
  id: 'heatmap',
  layerName: 'earthquakes-heat',
  url: "https://docs.mapbox.com/mapbox-gl-js/assets/earthquakes.geojson",
  method: 'heat',
  renderOptions: {
    blur: 0.85,
    maxOpacity: 0.8,
    minOpacity: 0,
    opacity: 0.8,
    radius: 10,
  },
}

```

```

    gradient: [
      '#313695',
      '#4575b4',
      '#74add1',
      '#abd9e9',
      '#e0f3f8',
      '#ffffbf',
      '#fee090',
      '#fdae61',
      '#f46d43',
      '#d73027',
      '#a50026'
    ],
  }
}

```

## 栅格图层(GeoJson/mapv)

通过geojson创建mapv图层

```

type MapVLayerItem = {
  url: string | GeoJSON.GeoJSON; // 点geojson链接或对象
  method: 'mapv';
  renderOptions?: MapVOptions;
} & Omit<BasicLayer, 'url'>;
/** MapV配置 */

type MapVOptions = MapVCommonOptions & (MapVBubbleOptions | MapVCategoryOptions
| MapVChoroplethOptions | MapVClusterOptions | MapVGridOptions |
MapVHeatmapOptions | MapVHoneycombOptions | MapVIntensityOptions |
MapVSimpleOptions | MapVTextOptions | MapVIconOptions)

type MapVCommonOptions = {
  /** 层级 */
  zIndex?: number;
  /** 大小值 */
  size?: number;
  /** 'px': 以像素为单位绘制,默认值.'m': 以米制为单位绘制, 会跟随地图比例放大缩小 */
  unit?: 'px' | 'm';
  /** 不同图层之间的叠加模式, 参考[https://developer.mozilla.org/en-US/docs/Web/CSS/mix-blend-mode] (https://developer.mozilla.org/en-US/docs/Web/CSS/mix-blend-mode) */
  mixBlendMode?: string;
  /** 填充颜色 */
  fillStyle?: string;
  /** 描边颜色 */
  strokeStyle?: string;
  /** 描边宽度 */
  lineWidth?: number;
  /** 透明度 */
  globalAlpha?: number;
  /** 颜色叠加方式, 默认'source-over' */
  globalCompositeOperation?: 'lighter' | 'source-over';
  /** 可选百度墨卡托坐标类型bd09mc和百度经纬度坐标类型bd0911(默认) */
  coordType?: 'bd09mc' | 'bd0911';
}

```

```

/** 投影颜色 */
shadowColor?: string;
/** 投影模糊级数 */
shadowBlur?: number;
/** 重绘回调函数，如果是时间动画、返回当前帧的时间 */
updateCallback?: (time?: number) => void;
shadowOffsetX?: number;
shadowOffsetY?: number;
/** 可选2d和webgl，webgl目前只支持画simple模式的点和线 */
context?: '2d' | 'webgl';
lineCap?: 'butt';
lineJoin?: 'miter';
miterLimit?: number;
/** 一些事件回调函数 */
methods?: {
  /** 点击事件，返回对应点击元素的对象值 */
  click?: (item?: any) => void;
  /** 鼠标移动事件，对应鼠标经过的元素对象值 */
  mousemove?: (item?: any) => void;
  /** 只针对移动端，点击事件 */
  tap?: (item?: any) => void;
};
animation?: {
  /** 按时间展示动画 */
  type: 'time';
  /** 动画时间范围,time字段中值 */
  stepsRange?: {
    start?: number;
    end?: number;
  };
  /** 时间动画的拖尾大小 */
  trails?: number;
  /** 单个动画的时间，单位秒 */
  duration?: number;
};
}

```

```

type GradientColor = Record<number, string>

```

```

type MapVLabelOptions = {
  show: boolean;
  fillStyle?: string;
  shadowColor?: string;
  font?: string;
  shadowBlur?: number;
}

```

```

/** 普通绘制方式 */
type MapVSimpleOptions = {
  draw: 'simple';
}

```

```

/** 蜂窝状聚类图配置 */
type MapVHoneycombOptions = {
  draw: 'honeycomb';
}

```

```
size?: number;
/** 网格中显示累加的值总和 */
label?: MapVLabelOptions
gradient?: GradientColor
}

/** 聚类图配置 */
type MapVClusterOptions = {
  draw: 'cluster';
  label?: MapVLabelOptions;
}

/** 气泡图配置 */
type MapVBubbleOptions = {
  draw: 'bubble';
  /** 显示的圆最大半径大小 */
  maxsize?: number;
  /** 数值最大值范围 */
  max?: number;
}

/** 热力图配置 */
type MapVHeatmapOptions = {
  draw: 'heatmap';
  /** 每个热力点半径大小 */
  size?: number;
  /** 热力图渐变色 */
  gradient?: GradientColor;
  /** 最大权重值 */
  max?: number;
}

/** 网格聚类图配置 */
type MapVGridOptions = {
  draw: 'grid';
  size?: number;
  gradient?: GradientColor;
  /** 网格中显示累加的值总和 */
  label?: MapVLabelOptions
}

/** 颜色渐变图配置 */
type MapVIntensityOptions = {
  draw: 'intensity';
  /** 最小阈值 */
  min?: number;
  /** 最大阈值 */
  max?: number;
  gradient?: GradientColor;
}

/** 颜色分类图配置 */
type MapVCategoryOptions = {
  draw: 'category';
  splitList?: {
```

```

        other: string;
        [key: string | number]: string;
    }
}

/** 值区间分类图配置 */
type MapvChoroplethOptions = {
    draw: 'choropleth';
    /** 按数值区间来展示不同颜色的点 */
    splitList?: {
        start: number;
        end: number;
        color: string;
    }[]
}

/** 文本配置 */
type MapVTextOptions = {
    draw: 'text';
    fillStyle?: string;
    textAlign?: 'center';
    /** 开启文本标注避让 */
    avoid?: boolean;
    textBaseline?: 'middle';
    /** 文本偏移值 */
    offset?: {
        x?: number;
        y?: number;
    };
}

type MapVIconOptions = {
    draw: 'icon';
    /** 图片旋转角度 */
    rotate?: string;
    /** 规定图像的宽度 */
    width?: number;
    /** 规定图像的高度 */
    height?: number;
    /** 添加点击事件时候可以用来设置点击范围 */
    size?: number;
    /** 开始剪切的 x 坐标位置 */
    sx?: number;
    /** 开始剪切的 y 坐标位置 */
    sy?: number;
    /** 被剪切图像的宽度 */
    swidth?: number;
    /** 被剪切图像的高度 */
    sheight?: number;
}

```

## 案例

```

{
    id: 'honeycomb',

```

```

layerName: 'earthquakes-honeycomb',
url: "https://docs.mapbox.com/mapbox-gl-js/assets/earthquakes.geojson",
method: 'mapv',
renderOptions: {
  draw: 'honeycomb',
  shadowColor: 'black',
  shadowBlur: 10,
  size: 50,
  gradient: [
    '#313695',
    '#4575b4',
    '#74add1',
    '#abd9e9',
    '#e0f3f8',
    '#ffffffbf',
    '#fee090',
    '#fdae61',
    '#f46d43',
    '#d73027',
    '#a50026'
  ],
  globalAlpha: 0.8,
  label: {
    show: true,
    fillStyle: 'white',
  }
}
}

```

## 矢量图层(TMS/pbf)

```

/**
 * 以pbf方式加载的矢量图层元数据格式
 */
type PbfLayerItem = {
  url: string | Object; // 支持传入mapbox样式地址.json、mapbox样式对象、pbf瓦片地址
                        // geojson类型支持传入geojson地址、geojson对象
  method: 'pbf';
  originMethod?: 'pbf' | 'geojson'; // url类型, 如果是geojson则必填
  geoJsonType?: 'point' | 'line' | 'polygon';
  renderOptions?: PbfOptions;
  columns?: {
    column_name: string;
    data_type: "string" | "number";
  }[]; // 列字段信息
} & Omit<BasicLayer, 'url'>;

type PbfOptions = {
  type?: 'single' | 'section' | 'value' | 'bubble'; // 单色、分段、单值、气泡
  config?: Record<string, any>; // 渲染配置, 不同geoJsonType和不同渲染模式需求的字段不同
                                // 共计10种方案, 类似geojson渲染方案, 不详述
  symbol?: { // 标签设置
    "text-field"?: string;
    "text-size"?: number;

```

```

    'text-color'?: string;
    'text-anchor'?: string;
  };
} & RasterOptions;

```

## 案例

```

{
  layerName: 'pbf',
  id: 'pbf',
  method: 'pbf',
  url: 'https://vstyles.mapplus.cn/v1.0/styles/bj_500_dz/style.json',
  viewPort: [116.3, 39.9, 1000000]
}

```

## NC图层

```

/**
 * nc图层元数据格式
 */
type NCLayerItem = {
  method: 'nc';
  renderOptions?: NCOptions;
  fields?: { // fields默认为 { lon: 'lon', lat: 'lat', u: 'U', v: 'V' }
    lon?: string;
    lat?: string;
    u?: string;
    v?: string;
  }
  valueRange?: { // valueRange默认为{ min: -100, max: 100},即UV纬度值的范围
    min?: number;
    max?: number;
  }
  offset?: { // 经纬度偏移值,默认为{ lon: 0, lat: 0, lev: 0 };
    lon?: number;
    lat?: number;
    lev?: number;
  }
} & BasicLayer;

type NCOptions = {
  colorBar?: string[];
  maxParticles?: number;
  particleHeight?: number;
  fadeOpacity?: number;
  dropRate?: number;
  dropRateBump?: number;
  speedFactor?: number;
  linewidth?: number;
  dynamic?: boolean;
  valueRange?: {
    min: number;
    max: number;
  }
}

```

```
};

const DefaultNCOptions = {
  maxParticles: 64 * 64,
  particleHeight: 1000.0,
  fadeOpacity: 0.950,
  dropRate: 0.003,
  dropRateBump: 0.01,
  speedFactor: 0.5,
  linewidth: 4.0,
  dynamic: true
}
```

## 3DTiles图层

```
/**
 * 3dtiles图层元数据格式
 */
type TDTileLayerItem = {
  method: 'tdtiles';
  renderOptions?: TDTileOptions
} & BasicLayer;

type TDTileOptions = {
  defaultColor: string;
  conditions?: {
    height: number;
    color: string;
  }[];
  showHeight?: number;
};

const DefaultTDTileOptions = {
  defaultColor: 'rgba(0, 247, 255, 1)',
  showHeight: 0,
}
```

## KML图层

```
/**
 * kml图层元数据格式
 */
type KMLLayerItem = {
  method: 'kml';
  layerType?: 'kml';
  renderOptions?: KMLOptions;
} & BasicLayer;

type KMLOptions = {
  labelColor?: string[];
}
```



## 示例

```
// 添加一个栅格图层(tms)
{
  type: 'addLayer',
  body: {
    {
      layer: {
        layerName: "1:500",
        url: "http://202.107.245.52:5160/v1.0/yanjiangyan?z={z}&x={x}&y={y}",
        method: "tms",
        id: "2ff6ae2d-aa3a-4255-ab0b-b33aae289300",
      }
    }
  }
}
```

## removeLayer

根据图层id移除图层

### 数据格式

```
type RemoveLayerEvent = {
  type: 'removeLayer',
  body: {
    id: string;
    options?: { // 默认都为true
      showMessage?: boolean; // 是否显示移除成功/失败信息
    };
  }
}
```

## 示例

```
{
  type: 'removeLayer',
  body: {
    id: '2ff6ae2d-aa3a-4255-ab0b-b33aae289300'
  }
}
```

## moveLayerById

根据id移动图层，将原图层移动到目标图层所在的位置

### 数据格式

```
type MoveLayerByIdEvent = {
  type: 'moveLayerById',
  body: {
    sourceId: string;
    targetId: string;
  }
}
```

## 示例

```
{
  type: 'moveLayerById',
  body: {
    sourceId: '123',
    targetId: '234',
  }
}
```

# 数据集管理接口

## addDataSet

添加数据集

## 数据格式

```
type AddDataSetEvent = {
  type: 'addDataSet',
  body: {
    name: string;
    id: string;
  }
}
```

## 示例

```
{
  type: 'addDataSet',
  body: {
    name: 'testDataSet',
    id: '12345'
  }
}
```

## removeDataSet

根据id移除数据集

## 数据格式

```
type RemoveDataSetEvent = {  
  type: 'removeDataSet',  
  body: {  
    id: string;  
  }  
}
```

## 示例

```
{  
  type: 'removeDataSet',  
  body: {  
    id: '12345'  
  }  
}
```

## 图元管理接口

### addPoints

## 数据格式

添加多个点

```
type AddPointsEvent = {  
  type: 'addPoints',  
  body: {  
    id: string; // 如果重复,会被覆盖  
    positions: number[][]; // 经纬度  
    style?: {  
      color?: string; // 点颜色  
      pixelSize?: number; // 点大小  
      outlineColor?: string;  
      outlineWidth?: number  
    }  
    properties?: Record<string, any> // 属性  
  }  
}  
  
// 默认的style样式  
const DefaultPointsStyle = {  
  color: '#f47920',  
  pixelSize: 3  
}
```

## 示例

```
{
  type: 'addPoints',
  body: {
    id: 'test',
    positions: [[120, 30], [100, 40]],
    style: {
      color: 'red'
    },
    properties: {
      'key': 'value'
    }
  }
}
```

## removePoints

移除对应id的多点图层

### 数据格式

```
type RemovePointsEvent = {
  type: 'removePoints',
  body: {
    id: string;
  }
}
```

### 示例

```
{
  type: 'removePoints',
  body: {
    id: 'test',
  }
}
```

## 地图设置接口

### componentConfig

控制图层管理、图例组件的显示隐藏

### 数据格式

```
type ComponentConfigEvent = {
  type: 'componentConfig',
  body: {
    layerManage?: {
      datasetManage?: {
        disableRemove?: boolean;
        hideLayerPlayer?: boolean;
      }
    }
  };
};
```

```

        showLegend?: boolean;
    }
}

// 默认配置
const DefaultComponentConfig = {
    layerManage: {
        datasetManage: {
            disableRemove: true,
            hideLayerPlayer: true
        }
    },
    showLegend: true
}

```

## 示例

```

// 隐藏图层管理、图例
{
    type: 'componentConfig'
    body: {}
}

// 隐藏图层管理，显示图例
{
    type: 'componentConfig'
    body: {
        showLegend: true,
    }
}
{
    showLegend: true,
}

// 显示图层管理，但隐藏数据集管理
{
    type: 'componentConfig'
    body: {
        layerManage: {}
    }
}

```

## mapConfig

地图设置，包括导航经纬度控件显示隐藏、地图二三维切换、底图注记地形更改等

## 数据格式

```

type MapConfigEvent = {
    type: 'mapConfig',
    body: {
        navigator?: boolean; // 是否显示导航控件
        mapStatusBar?: boolean; // 是否显示右下地图信息条
        viewerModeSwitch?: boolean; // 是否显示二三维切换按钮
    }
}

```

```

    measureTool?: boolean; // 是否显示量算按钮
    cameraController?: boolean; // 是否显示摄像机控制按钮
    displayMode?: 1 | 2 | 3; // 2为二维, 3为三维, 1为2.5D
    skyAtmosphere?: boolean; // 是否显示大气
    fogDensity?: number; // 水汽含量
    baseMap?: LayerItem; // 底图
    annotationMap?: LayerItem; // 注记
    terrain?: TerrainLayer; // 地形
    ajaxBar?: boolean; // 是否显示地图请求进度条
    performance?: number; // 显示效果, 与性能有关, 数值0-1, 越大越精细
    terrainExaggeration?: number; // 地形拉伸系数
    graticules?: boolean; // 是否显示经纬网
    antiAliasing?: boolean; // 是否开启FXAA抗锯齿
  }
}

type TerrainLayer = {
  layerName: string;
  id: string;
  url?: string | null; // null时为Cesium在线地形, 无此字段则不加载地形
  headers?: Record<string, any>; // 请求头
  queryParameters?: Record<string, any>; // 可以传自定义url参数, 如token等
  imageURL?: string;
  options?: {
    requestWaterMask?: boolean; // 水面效果
    requestVertexNormals?: boolean; // Needed to visualize slope
  };
};

// 默认地图配置
const DefaultMapConfig = {
  navigator: true,
  displayMode: 1,
  skyAtmosphere: true,
  fogDensity: 0.0001,
  baseMap: {
    layerName: '高德影像底图',
    id: '底图-高德影像底图',
    method: 'amap',
    url: 'http://webst02.is.autonavi.com/appmaptile?style=6&x={x}&y={y}&z={z}',
    imageURL: 'http://lbs.tianditu.gov.cn/images/img_c.png',
  },
  annotationMap: {
    layerName: '高德注记',
    id: '注记-高德注记',
    method: 'amap',
    url: 'http://webst02.is.autonavi.com/appmaptile?style=8&x={x}&y={y}&z={z}',
    imageURL: 'http://lbs.tianditu.gov.cn/images/cva_c.png',
  },
  terrain: {
    layerName: '不加载地形',
    id: '地形-不加载地形',
    imageURL:

```

```

    'https://sandcastle.cesium.com/CesiumUnminified/widgets/Images/TerrainProviders/
    Ellipsoid.png',
  },
  mapStatusBar: true,
  viewerModeSwitch: true,
  measureTool: true,
  cameraController: true,
  ajaxBar: true,
  performance: 1.0,
  terrainExaggeration: 1.0,
  graticules: false,
  antiAliasing: false
};

```

## 示例

```

// 切换为2维地图
{
  type: 'mapConfig',
  body: {
    displayMode: 2,
  }
}

// 更改底图为ESRI全球底图
{
  type: 'mapConfig',
  body: {
    baseMap: {
      layerName: 'ESRI全球底图',
      id: '底图-ESRI全球底图',
      method: 'arcgis',
      url:
        'http://services.arcgisonline.com/ArcGIS/rest/services/world_Imagery/MapServer',
      imageURL:

        'https://sandcastle.cesium.com/CesiumUnminified/widgets/Images/ImageryProviders/
        esriworldImagery.png',
    }
  }
}

// 更改地形为Cesium在线地形
{
  type: 'mapConfig',
  body: {
    terrain: {
      layerName: 'Cesium在线地形',
      id: '地形-Cesium在线地形',
      url: null,
      options: {
        requestWaterMask: false,
      },
      imageURL:

```

```
'https://sandcastle.cesium.com/CesiumUnminified/widgets/Images/TerrainProviders/CesiumWorldTerrain.png',  
  }  
}  
}
```

## cartography

进入/退出制图模式

### 数据格式

```
type CartographyEvent = {  
  type: 'cartography',  
  body: {  
    show: boolean;  
  }  
}
```

### 示例

```
// 进入制图模式  
{  
  type: 'cartography',  
  body: {  
    show: true,  
  }  
}
```

## openTool

打开工具，面板自带退出工具按钮

### 数据格式

```
type OpenToolEvent = {  
  type: 'openTool',  
  body: {  
    tool: 'geoReconstruct' | 'layerSplit' | 'layerVideo' | 'project'  
    show?: boolean; // 默认为true, 打开工具  
    style?: { // 工具面板的定位，默认定位到左上角  
      right?: number;  
      left?: number;  
      top?: number;  
      bottom?: number;  
    };  
    bounds?: { // 工具面板拖拽限制  
      right?: number;  
      left?: number;  
      top?: number;  
      bottom?: number;  
    };  
  }  
}
```



```
};  
}  
}
```

## 示例

```
// 打开古地理重建工具  
{  
  type: 'openTool',  
  body: {  
    tool: 'geoReconstruct',  
  }  
}  
  
// 打开古地理重建工具，并定位到右上角，且限制拖拽区域  
{  
  type: 'openTool',  
  body: {  
    tool: 'geoReconstruct',  
    style: {  
      right: 10,  
      top: 10  
    },  
    bounds: {  
      right: -10,  
      top: -10  
    }  
  }  
}  
  
// 打开项目工具  
{  
  type: 'openTool',  
  body: {  
    tool: 'project',  
  }  
}  
  
// 项目保存时监听保存成功时返回的项目id  
// 接收iframe发来的信息  
window.addEventListener('message', function(e) {  
  const { type, body } = e.data;  
  switch (type) {  
    case 'openTool':  
      // 输出创建成功的项目id  
      console.log(body.id);  
      break;  
  }  
});
```

# renderLayer

渲染一个已经加载的图层

## 数据格式

```
type RenderLayerEvent = {
  type: 'renderLayer',
  body: {
    id: string;
    options: RenderOptions; // 图层的渲染配置，详情见addLayer接口中每个图层的renderOption
    forceMethod?: LayerMethod; // 强制以某种方式进行渲染
  }
}
```

## 示例

```
// 调整栅格图层透明度
{
  type: 'openTool',
  body: {
    id: '1234',
    options: {
      alpha: 0.5;
    }
  }
}
```

# spatialQuery

开启或关闭某个矢量图层的空间查询功能

## 数据格式

```
type SpatialQueryEvent = {
  type: 'spatialQuery',
  body: {
    id: string; // 矢量图层的id，每次只能开启一个图层的查询，填写''即为关闭空间查询
  }
}
```

## 示例

```
// 开启矢量图层的空间查询
{
  type: 'spatialQuery',
  body: {
    id: '1234'
  }
}
```

# cogQuery

开启或关闭某个COG图层的点击查询功能，可同时开启多个

## 数据格式

```
type CogQueryEvent = {  
  type: 'cogQuery',  
  body: {  
    id: string; // cog图层的id  
    enable: boolean; // 是否开启查询  
  }  
}
```

## 示例

```
// 开启COG图层的空间查询  
{  
  type: 'cogQuery',  
  body: {  
    id: '1234',  
    enable: true  
  }  
}
```