




! API , BI MATRIX .
API Key , .

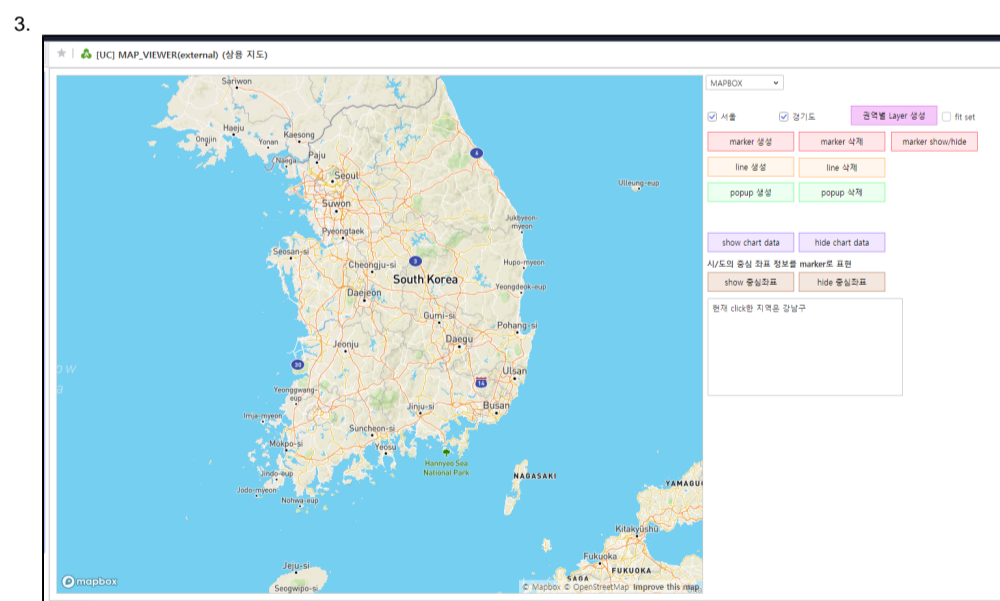
!

- GeoMap ()
 1. GeoMap
 2. GeoMap
- GeoMap ()

1. a. AddIn Control GeoMap Component API .
b. API : **Mapbox gl, Kakao, V-world**
- 2.

Viewer	[UC] MAP_VIEWER(external) ()	UserComponent . UserComponent UserComponent .	 [UC] MAP_VIEWE... (상용 지도).mtsz
UserComponent	[GeoMap] MAP_USERCOMPONENT(external)	AddIn Control GeoMap Component	 [GeoMap] ...ernal).sc
	[GeoMap] MAP_USERCOMPONENT(overlay)	GeoMap Component addOverlay , i-AUD Overlay	 [GeoMap] ...erlay).sc

! - File DB
DB Connection , File DB Connection .



a. Component

Method	Method
addLine(locations)	locations Line , Line . <ul style="list-style-type: none"> • setColor(color): line color . Update() UI . • setWidth(width): line width . Update() UI . • setLineDash(linedash): line lineDash . Update() UI . • setLineCap(lineCap): line line style . Update() UI . • removeLines(coordinate): coordinate line .
addMarker(markerInfos)	markerInfos Marker , Marker . - markerInfos : Array<object>) markerInfos <pre>[{ 'name' : '', 'id' : 'ID_AA', 'lonLat' : ['127.0448', '37.5038'] }, { 'name' : '', 'id' : 'ID_BB', 'lonLat' : ['126.9602', '37.5788'] }]</pre>
Dispose()	Component Dispose.

Resize()	Component Resize.
LoadMap(geoJson, isFit)	geoJson Layer . isFit true Bound Set. - geoJson : GeoJSON - isFit : boolean
addOverlay(options)	Overlay . <div style="border: 1px solid #ccc; padding: 5px; margin-top: 5px;"> <p>options</p> <pre> element?: HTMLElement; offset?: Array<number>; position?: Array<number>; positioning? : string; reportCode?: string; params?: object; </pre> </div>
addDomesticGeoJson(isFit)	Layer . isFit true Bound Set. - isFit : boolean

b. Component

Event	Event
OnFeatureClick	Map Feature click . Feature .
OnMarkerClick	Map Marker Marker click . Marker Layer Feature .



getProjUtil() GeoMap Component util . Proj Util .

```

var projUtil = map.util.getProjUtil();
// Proj . defineNewProjection .
var predefinedProjections = projUtil.getPreDefinedProjections() // return ['EPSG:4326', 'EPSG:4269', 'EPSG:3857'];

// ) EPSG:5181 [37.528, 126.9207]
// 1.
// proj4 https://epsg.io/5181 .
projUtil.defineNewProjection("EPSG:5181", "+proj=tmmerc +lat_0=38 +lon_0=127 +k=1 +x_0=200000 +y_0=500000 +ellps=GRS80 +units=m +no_defs")
// 2.
var transformedCoordinate = projUtil.transformCoordinate("EPSG:5181", [37.528, 126.9207]); // return [124.84886361842304, 33.47611942468759]

```



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getCenterPoint(callback) GeoMap Component util .

callback .

SGIS API SGIS .
/ .

```

function getCenter(){
  map.util.getCenterPoint(function(datas){
    // callback function (datas )
    var markerInfo = datas.map(function(data){
      return {
        name: data.name,
        lonLat: data.lonLat
      }
    });
    map.addMarker(markerInfo); //
  });
}

```

lonLat:

code: SGIS

name: (MAP_GEO_1 LABEL)

```
[
  {
    "lonLat": [
      126.97834782835902,
      37.56669009036455
    ],
    "code": "11",
    "name": ""
  },
  {
    "lonLat": [
      129.09175563706935,
      35.24125634125668
    ],
    "code": "21",
    "name": ""
  },
  {
    "lonLat": [
      128.6226425399308,
      35.97347538476608
    ],
    "code": "22",
    "name": ""
  },
  {
    "lonLat": [
      126.70523602351949,
      37.45604185708162
    ],
    "code": "23",
    "name": ""
  },
  {
    "lonLat": [
      126.8354459164671,
      35.15573674234789
    ],
    "code": "24",
    "name": ""
  },
  {
    "lonLat": [
      127.39405991650911,
      36.33980451022681
    ],
    "code": "25",
    "name": ""
  },
  {
    "lonLat": [
      129.23840258289323,
      35.55370705798613
    ],
    "code": "26",
    "name": ""
  },
  {
    "lonLat": [
      127.25881030360377,
      36.560535581441435
    ],
    "code": "29",
    "name": ""
  },
  {
    "lonLat": [
      127.25204502645134,
      37.2865873659788
    ],
    "code": "31",
    "name": ""
  },
  {
    "lonLat": [
      128.17336172923484,
      37.8836272925393
    ],
    "code": "32",
    "name": ""
  },
  {
    "lonLat": [
      127.53924730130387,
      36.73834076972116
    ],
    "code": "33",
    "name": ""
  },
  {
    "lonLat": [
      126.71839045797792,
      36.67835738574175
    ],
    "code": "34",
    "name": ""
  },
  {
    "lonLat": [
      127.10867588676484,
      35.820389942968816
    ],
    "code": "35",
    "name": ""
  },
  {
    "lonLat": [
      126.67198974055624,
      34.814882947753354
    ],
    "code": "36",
    "name": ""
  },
  {
    "lonLat": [
      128.75109173106813,
      36.4649263768976
    ],
    "code": "37",
    "name": ""
  },
  {
    "lonLat": [
      128.16437996516694,
      35.42913615877326
    ],
    "code": "38",
    "name": ""
  },
  {
    "lonLat": [
      126.48382513785216,
      33.40104880413814
    ],
    "code": "39",
    "name": ""
  }
]
```



getTurfUtil() GeoMap Component **util** . Turf Util .

```
var turfUtil = map.util.getTurfUtil();  
  
// . turf midpoint .  
var curveLine = turfUtil.addCurveLine([37.683105,55.751849], [129.078369,35.169318], undefined); // "LineString" type feature
```

shp
shp geoJson AUD (WGS84) .
geoTools service.mtsz.(mapbox .)



- JDK 11 : JDK 11 .JDK 11 .

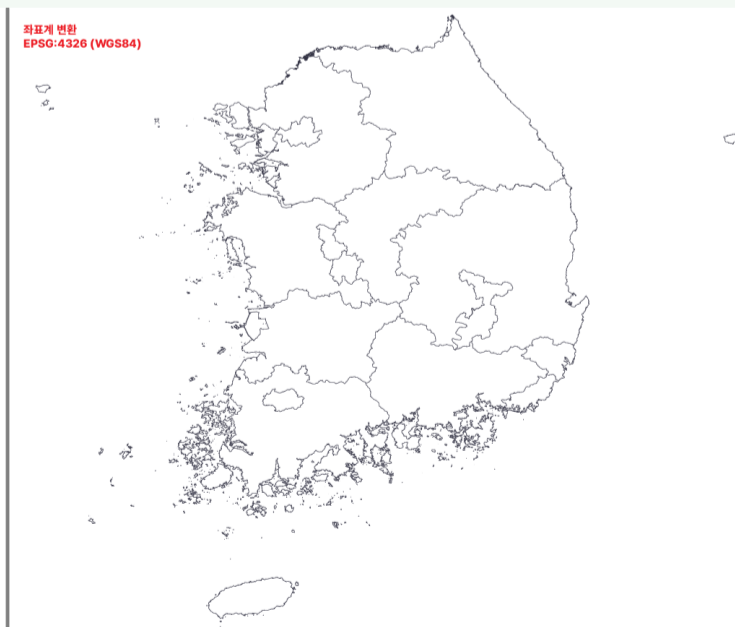
1. geomap-1.0.jar [CONTEXT_ROOT]/WEB-INF/lib/ .
2. server script filePath .

Client Script

```
/* shp geoJson WGS84 */  
function convertSHPfile(){  
    Matrix.RunScript('', 'CONVERT_COORDS', function(p){  
        if(p.Success == false){  
            Matrix.Alert(p.Message);  
            return;  
        }  
        var ds = p.DataSet;  
        closure.map.LoadMap(ds, true); // geoJson .  
    });  
}
```

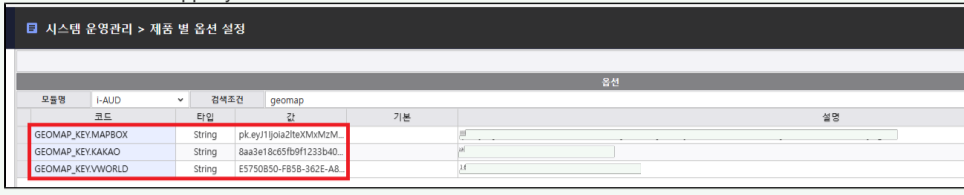
Server Script

```
/* jar */  
var req = Matrix.getRequest(); /* request */  
var res = Matrix.getResponse(); /* response */  
var session = Matrix.getSession(); /* session */  
var util = Matrix.getUtility(); /* utility */  
var fso = Matrix.getFileSystemObject(); /* file access */  
  
try{  
    Matrix.WriteCustomLog('geoTools', '==== shell command [] ====');  
  
    // shp file path  
    var inputFilePath = req.getParam('VS_SHP_PATH');  
  
    // geoJson file path  
    var filePath = 'C:/AUDPlatform_7/matrix/reports/_TEMP_/';  
    var fileName = util.getUniqueKey('GEO') + '.json';  
    var outputFilePath = fso.PathCombine(filePath, fileName);  
  
    // target  
    var epsgCode = req.getParam('VS_EPSG_CODE');  
  
    Matrix.WriteCustomLog('geoTools', '==== shell command [inputFilePath] ==== ' + inputFilePath);  
    Matrix.WriteCustomLog('geoTools', '==== shell command [outputFilePath] ==== ' + outputFilePath);  
  
    /* jar */  
    var cmdArray = [  
        "C:\\Program Files\\Java\\jdk-11\\bin\\java.exe", // jdk 11  
        "-  
jar",  
        "C:\\AUDPlatform_7\\matrix\\WEB-INF\\lib\\geomap-1.0.jar", // geomap-1.0.jar // jar  
        inputFilePath, // .shp  
        outputFilePath, // .json  
        epsgCode //  
    ];  
    var result = util.ShellExecute(cmdArray, true);  
    Matrix.WriteCustomLog('geoTools', '==== shell command [] ====');  
  
    if(fso.Exists(outputFilePath)){  
        Matrix.WriteCustomLog('geoTools', '==== read geoJson [] ====');  
        res.WriteResponseTextFile(outputFilePath)  
        fso.DeleteFile(outputFilePath);  
        Matrix.WriteCustomLog('geoTools', '==== read geoJson [] ====');  
    }  
}catch(e){  
    Matrix.WriteCustomLog('geoTools', '==== CONVERT_COORDS Error ==== ' + e);  
}
```

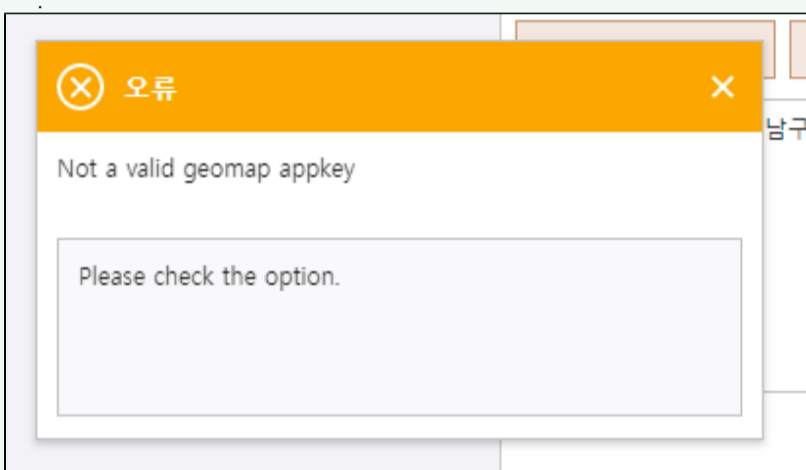


- Client
 - Point - proj : <https://github.com/OSGeo/PROJ>
 - turf : <https://github.com/Turfjs/turf>
 - SGIS : <https://sgis.kostat.go.kr/developer/html/newOpenApi/api/dataApi/addressBoundary.html>
- Server
 - GeoTools : <https://github.com/geotools/geotools>

> > i-AUD > appkey row .



	API	appkey
GEOMAP_KEY_MAPBOX	Mapbox gl	https://docs.mapbox.com/help/glossary/access-token/
GEOMAP_KEY_KAKAO	Kakao	https://apis.map.kakao.com/web/guide/
GEOMAP_KEY_VWORLD	V-world	https://www.vworld.kr/dev/v4dv_apikey_s001.do ()



- 1. ie11 .
- 2. [i-AUD] GeoMap .
- 3. API Key ,

<input checked="" type="checkbox"/> API Open	<input type="checkbox"/> UI Open	<input type="checkbox"/> Read Only	<input type="checkbox"/> Not Use	<input checked="" type="checkbox"/> Hidden	<input type="checkbox"/> Not Recommend	<input type="checkbox"/>
• Release No : 7.0.500.20240329-01						

• URL

[GeoMap] MAP_USERCOMPONENT(external).sc	2024-03-18 by AUD
[GeoMap] MAP_USERCOMPONENT(overlay).sc	2024-03-18 by AUD
geoTools service .mtsz	2024-04-04 by AUD
[UC] MAP_VIEWER(external) (.).mtsz	2024-06-27 by AUD