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Google Earth データの読み込み

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Google Earth で作成された、目印、ポリゴン、パスの地図データ（緯度、経度、標高）を取得するには以下の作業となる。

Google Earth の画面左にある目印、ポリゴン、パスをクリックし、【コピー】を選択し、Note Pad に貼りつける（図 1 参照）。貼りつけられたものは下記のような KML ソースコードである。このソースコードから緯度・経度のデータを読み込み、座標変換を行う。座標変換は変換ソフト XYBL TOOL にて行う。変換ソフトを使用する場合、データの並びは緯度・経度の順番となるため、ソースコードからデータを読み込み、並べ替えを行う必要がある。このため、Google Earth データの取得とデータ並べ替えを行うソフトを作成する。GetG&EData

<coordinates>(必須)

経度、緯度、標高を(この順序で)表す浮動小数点数値で構成される単一のデータ。経度と緯度の値は、次のように度数で指定します。

- 経度は -180 以上 180 以下の範囲の度数
- 緯度は -90 以上 90 以下の範囲の度数
- 標高(オプション)は海面からのメートル単位の距離

座標を示す 3 つの値の間に空白を入れしないでください。

①目印の場合

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<kml xmlns="http://www.opengis.net/kml/2.2"
```

```
xmlns:gx="http://www.google.com/kml/ext/2.2"
```

```
xmlns:kml="http://www.opengis.net/kml/2.2" xmlns:atom="http://www.w3.org/2005/Atom">
<Document>
  <name>KmlFile</name>
  <Style id="s_ylw-pushpin_hl2">
    <IconStyle>
      <scale>1.3</scale>
      <Icon>
        <href>http://maps.google.com/mapfiles/kml/pushpin/ylw-pushpin.png</href>
      </Icon>
      <hotSpot x="20" y="2" xunits="pixels" yunits="pixels"/>
    </IconStyle>
  </Style>
  <StyleMap id="m_ylw-pushpin2">
    <Pair>
      <key>normal</key>
      <styleUrl>#s_ylw-pushpin</styleUrl>
    </Pair>
    <Pair>
      <key>highlight</key>
      <styleUrl>#s_ylw-pushpin_hl2</styleUrl>
    </Pair>
  </StyleMap>
  <Style id="s_ylw-pushpin">
```

```
<IconStyle>
  <scale>1.1</scale>
  <Icon>
    <href>http://maps.google.com/mapfiles/kml/pushpin/ylw-pushpin.png</href>
  </Icon>
  <hotSpot x="20" y="2" xunits="pixels" yunits="pixels"/>
</IconStyle>
</Style>
<Placemark>
  <name>無題 - 目印</name>
  <LookAt>
    <longitude>130.6995947577003</longitude>
    <latitude>33.34358292244446</latitude>
    <altitude>0</altitude>
    <heading>32.11763001997488</heading>
    <tilt>0</tilt>
    <range>11184.98016303379</range>
    <gx:altitudeMode>relativeToSeaFloor</gx:altitudeMode>
  </LookAt>
  <styleUrl>#m_ylw-pushpin2</styleUrl>
  <Point>
    <coordinates>130.6995947577003,33.34358292244445,0</coordinates>
  </Point>
```

‘目印の名前’

‘経度’

‘緯度’

‘高度、標高’

‘範囲’

‘経度、緯度、高度?’

```
</Placemark>
</Document>
</kml>
②パスの場合
<?xml version="1.0" encoding="UTF-8"?>
<kml xmlns="http://www.opengis.net/kml/2.2" xmlns:gx="http://www.google.com/kml/ext/2.2"
xmlns:kml="http://www.opengis.net/kml/2.2" xmlns:atom="http://www.w3.org/2005/Atom">
<Document>
  <name>KmlFile</name>
  <Style id="s_ylw-pushpin1">
    <IconStyle>
      <scale>1.1</scale>
      <Icon>
        <href>http://maps.google.com/mapfiles/kml/pushpin/ylw-pushpin.png</href>
      </Icon>
      <hotSpot x="20" y="2" xunits="pixels" yunits="pixels"/>
    </IconStyle>
  </Style>
  <Style id="s_ylw-pushpin_hl1">
    <IconStyle>
      <scale>1.3</scale>
      <Icon>
        <href>http://maps.google.com/mapfiles/kml/pushpin/ylw-pushpin.png</href>
```

```

        </Icon>
        <hotSpot x="20" y="2" xunits="pixels" yunits="pixels"/>
    </IconStyle>
</Style>
<StyleMap id="m_ylw-pushpin">
    <Pair>
        <key>normal</key>
        <styleUrl>#s_ylw-pushpin1</styleUrl>
    </Pair>
    <Pair>
        <key>highlight</key>
        <styleUrl>#s_ylw-pushpin_hl1</styleUrl>
    </Pair>
</StyleMap>
<Placemark>
    <name>無題 - パス</name>          ‘パスの名前
    <styleUrl>#m_ylw-pushpin</styleUrl>
    <LineString>
        <tessellate>1</tessellate>
        <coordinates>                ‘経度、緯度、高度？
            130.6771153464025,33.36139781977317,0
            130.6848368242974,33.36102243656946,0
            130.691152390426,33.36190857692264,0    130.6962827988359,33.36184189834076,0    130.6990745669079,33.36221358966685,0
            130.7028403482594,33.36325462951233,0    130.7077320217828,33.36370467406758,0    130.7113401052921,33.36390936865067,0

```

```

130.7160806963639,33.36666465586356,0    130.7196305204806,33.36846325299861,0    130.7201377832826,33.36872047387142,0
130.7227903745015,33.3699519633602,0    130.7249897350096,33.37037192669165,0    130.7294947496615,33.37010221237668,0
130.7352985203183,33.36967995277833,0    130.7409955145997,33.36722872623941,0    130.7471277235343,33.36557734122407,0
130.7513192557506,33.36468441104557,0    130.7554008670797,33.362401281395,0
        </coordinates>
    </LineString>
</Placemark>
</Document>
</kml>

```

③ ポリゴンの場合

```

<?xml version="1.0" encoding="UTF-8"?>
<kml          xmlns="http://www.opengis.net/kml/2.2"          xmlns:gx="http://www.google.com/kml/ext/2.2"
xmlns:kml="http://www.opengis.net/kml/2.2" xmlns:atom="http://www.w3.org/2005/Atom">
<Document>
    <name>KmlFile</name>
    <Style id="s_ylw-pushpin">
        <IconStyle>
            <scale>1.1</scale>
            <Icon>
                <href>http://maps.google.com/mapfiles/kml/pushpin/ylw-pushpin.png</href>
            </Icon>
        </IconStyle>
    </Style>

```

```
        </Icon>
        <hotSpot x="20" y="2" xunits="pixels" yunits="pixels"/>
    </IconStyle>
</Style>
<Style id="s_ylw-pushpin_hl">
    <IconStyle>
        <scale>1.3</scale>
        <Icon>
            <href>http://maps.google.com/mapfiles/kml/pushpin/ylw-pushpin.png</href>
        </Icon>
        <hotSpot x="20" y="2" xunits="pixels" yunits="pixels"/>
    </IconStyle>
</Style>
<StyleMap id="m_ylw-pushpin">
    <Pair>
        <key>normal</key>
        <styleUrl>#s_ylw-pushpin</styleUrl>
    </Pair>
    <Pair>
        <key>highlight</key>
        <styleUrl>#s_ylw-pushpin_hl</styleUrl>
    </Pair>
</StyleMap>
```

<Placemark>

<name>無題 - ポリゴン</name>

‘ポリゴンの名前

<styleUrl>#m_ylw-pushpin</styleUrl>

<Polygon>

<tessellate>1</tessellate>

<outerBoundaryIs>

<LinearRing>

<coordinates>

‘経度、緯度、高度？

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130.6848567576298,33.34265877585166,0 130.6853491449685,33.34226966679606,0 130.6865589647839,33.3413734330894,0
130.6872345511083,33.34101937817718,0 130.6889679148792,33.34102862911156,0 130.6899966074379,33.34114474279816,0
130.6912791107098,33.34138989184669,0 130.6925748207175,33.34123494288305,0 130.6946581517677,33.34066682881282,0
130.6959248585249,33.34026470849054,0 130.697079146428,33.33992176236902,0 130.6989085507936,33.33922493057601,0
130.699583705217,33.33887104304648,0 130.7001462940503,33.33857616181318,0 130.7009626282502,33.33841023743405,0
130.7017789230065,33.338244308196,0 130.7024538743476,33.33789048871662,0 130.7022940514483,33.33600986577849,0
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130.7037031081171,33.33226612368336,0 130.7042346808965,33.33172872414745,0 130.7045421143801,33.3313074540508,0
130.7053688045596,33.33074522118271,0 130.7063072150604,33.33012466567082,0 130.7067555755981,33.32989039388454,0
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130.7112661110625,33.33418752394657,0 130.7115122015621,33.33576052358866,0 130.7114750109243,33.33695889450069,0
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130.7110074581578,33.34008721390063,0 130.7109400077351,33.3410401477996,0 130.7111681405448,33.34196915789094,0

130.7118589196106,33.34226211774138,0 130.7123248105484,33.34267310933852,0 130.7128903626042,33.34342514174558,0
130.7135260873816,33.34427119337826,0 130.7132880557664,33.34478932773592,0 130.7123620122268,33.34606176240575,0
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130.7052954167011,33.35356966456269,0 130.7042698093231,33.3545022521388,0 130.7040446906594,33.35462038002633,0
130.702468765014,33.35544727473452,0 130.7016231216489,33.35536598571889,0 130.7005654855796,33.35500225550183,0
130.6998325299634,33.3548619524071,0 130.6990288953208,33.35462885282382,0 130.6976045415884,33.3541973615374,0
130.6968714504982,33.35405729555699,0 130.6961384872364,33.35391686046169,0 130.6950391374761,33.35370622650257,0
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130.6903698286077,33.35209106258375,0 130.6894244942664,33.35166888807994,0 130.6881835302582,33.35127049297167,0
130.6873224896433,33.35054183456552,0 130.6871812085442,33.35035367145829,0 130.6866027612302,33.35000135652161,0
130.6856578016959,33.34957896228745,0 130.6851786587878,33.34956791995954,0 130.6844876157134,33.34927464283129,0
130.6839378454027,33.34916952095603,0 130.6830921913799,33.34908838489265,0 130.6827256846015,33.34901830033716,0
130.6820766073685,33.3485719382177,0 130.6817368229972,33.34770130652375,0 130.6814542735615,33.34732504218297,0
130.6812843948142,33.34688974292484,0 130.6814641812746,33.34482949431624,0

</coordinates>

</LinearRing>

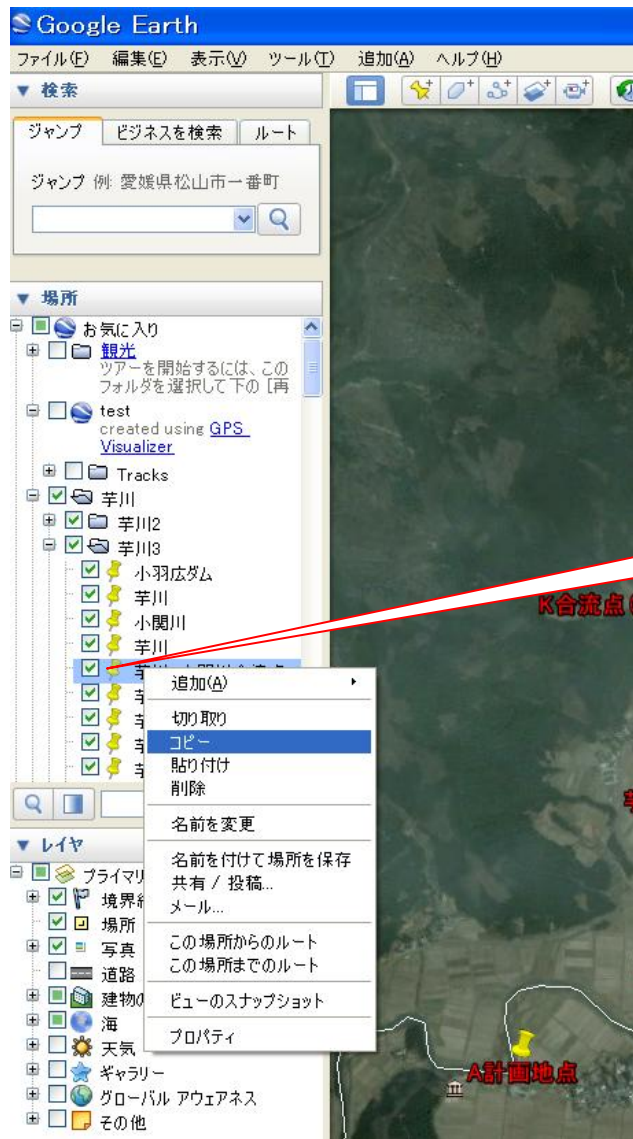
</outerBoundaryIs>

</Polygon>

</Placemark>

</Document>

</kml>



ここを右クリックし
コピーする。

図 1

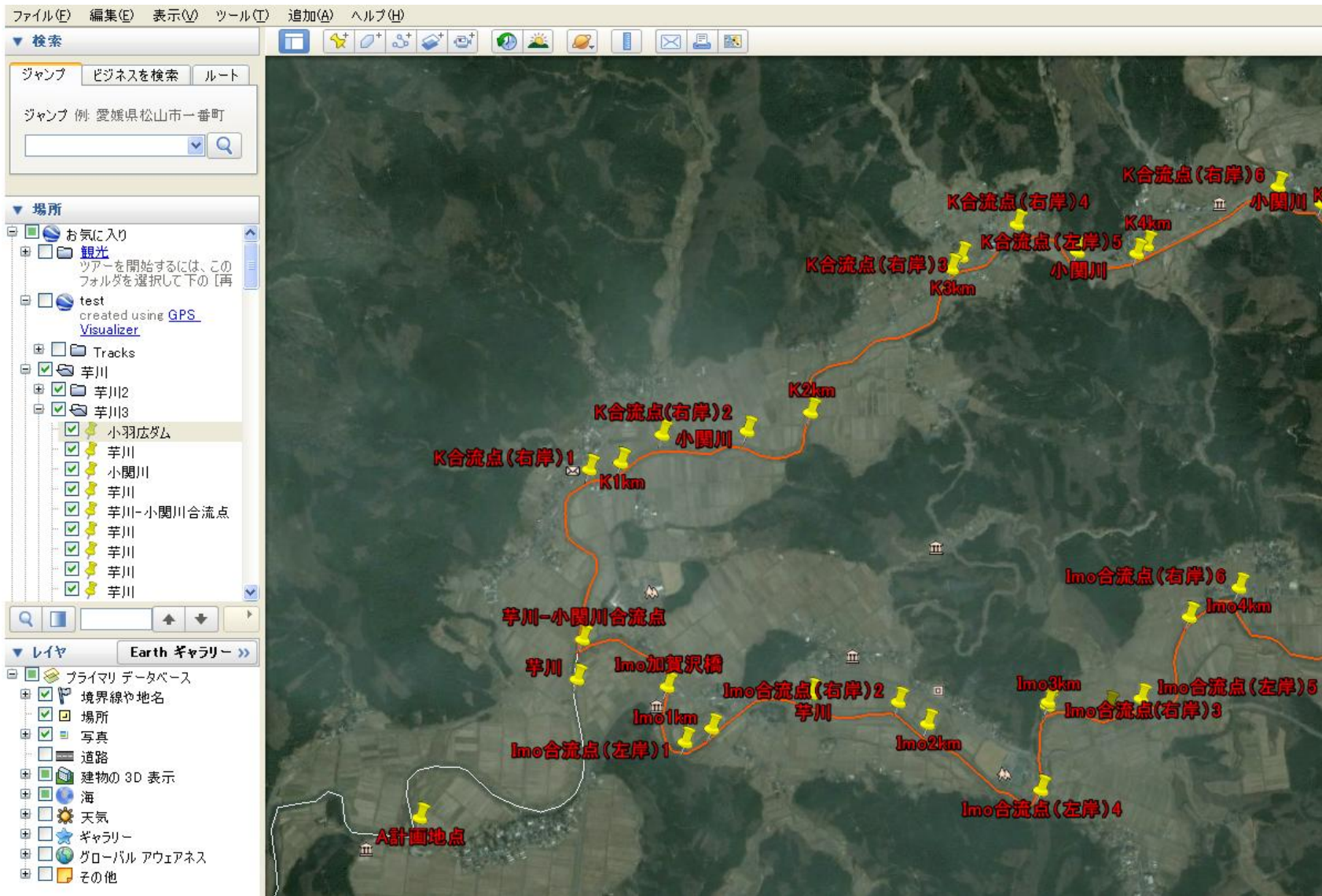


図 2 サンプル