



Geo-Reference Database (iG1000)

Introduction:

Geo-Reference Database provides geographic reference information for users to carry out location enquiry and spatial analysis.

Types of Geo-reference Database:

(A) Building Name and Address	(iBG1000)
(B) Site Polygon and Address	(iSG1000)
(C) Road Centre Line	(iRG1000)

Formats available:

	ASCII	DGN	DWG	FGDB	GML
(A) Building Name and Address (iBG1000)	✓	✓	✓	✓	✓
(B) Site Polygon and Address (iSG1000)	✓	✓	✓	✓	✓
(C) Road Centre Line (iRG1000)	✓	✓	✓	✓	✓

Database Structure:

Format	Drawing File(s) / Database	Textual Information / Attribute Table for Drawing	Related Table
ASCII	<feature>_Coord.txt	<feature>.txt	<table>.txt
DGN	<sheet>.dgn	<sheet>.mdb	
DWG	<sheet>.dwg	<sheet>.mdb	
FGDB		<sheet>.gdb	
GML	<feature>.gml		<table>.xml

(A) Building Name and Address (iBG1000)

The database contains building polygon with related building name and address information.

In ASCII format, the BuildingAndBuildingName_Coord.txt file stores the coordinates of the vertices of the Building Block, while the corresponding textual information is stored in the BuildingAndBuildingName.txt file. The building address information is stored in the BuildingAndBuildingAddress.txt file.

In FGDB format, BuildingAndBuildingName is the feature class showing the geometry and properties of building. BuildingAndBuildingAddress is the attribute table storing the properties of building address. Both are stored in the <sheet>.gdb database.

In GML format, the .xsd files are the schema files for the corresponding .gml or .xml data files. The BuildingAndBuildingName.gml is the data file storing the geometry and building properties while the BuildingAndBuildingAddress.xml stores the address information of the related building.

In DGN and DWG formats, the <sheet>.dgn and the <sheet>.dwg are the respective drawing files. The <sheet>.mdb contains the corresponding attribute tables, BuildingAndBuildingName and BuildingAndBuildingAddress, which provide building properties and address information respectively.

The database of iBG1000 consists of the following information:

Building Name Information

Building ID
Building Name
Building Top Level
Building Base Level
Site Code
Last Update Date
Coordinates of vertices of the polygon (ASCII)

Building Address Information

Building ID
Starting and Ending House Number
Address Type (Even, Odd or Sequential)
Street Code (street where the building is located)
Street Name
Last Update Date

Examples (ASCII):

1) Content Sample of the vertices coordinates of the Building Block (BuildingAndBuildingName_Coord.txt file): *St. Teresa's Church*

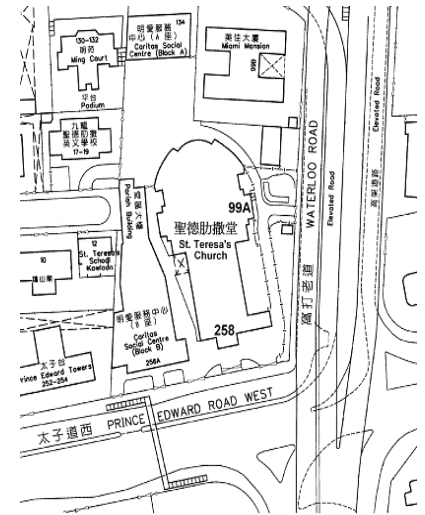
1108230043	820788.266	0	← Building ID
836377.134	820788.266	0	List of vertices coordinates
...			
836381.056	820768.071	0	
836377.134	820788.266	0	

2) Content Sample of Building Name (BuildingAndBuildingName.txt file): *St. Teresa's Church*

11393,1108230043,St. Teresa's Church,聖德肋撒堂,30.4,11.9,79590,7/1/2014 12:00:00 AM

Object ID Building ID Building Name Building Top Level Site Code Last Update Date

Building Base Level



(Topographic Map for reference only, not include in the iG1000 data)

3) Content Sample of Building Address (BuildingAndBuildingAddress.txt file): *St. Teresa's Church*
(One building with two addresses)

98270,1108230043,,258,,,258,,E,11788,PRINCE EDWARD ROAD WEST,太子道西,7/1/2014 12:00:00 AM

98271,1108230043,,99,A,,99,A,O,12690,WATERLOO ROAD,窩打老道,7/1/2014 12:00:00 AM

Object ID Building ID Starting House No. Ending House No. Address Type Street Code Street Name Last Update Date

(B) Site Polygon and Address (iSG1000)

A site is an area of estate, village, park, hospital, university, etc. or area with more than one main building serving the same nature of property, e.g. police station, private residential site. Only Estate may comprise of more than one subsite, which may or may not be delineated by physical features. The database contains site or subsite polygon with related site/subsite name and address information.

In ASCII format, the SitePolygonAndSiteName_Coord.txt/SubSitePolygonAndSubSiteName_Coord.txt file stores the coordinates of the vertices of the Site/SubSite Polygon, while the corresponding textual information is stored in the SitePolygonAndSiteName.txt/SubSitePolygonAndSubSiteName.txt file. The site/subsite address information is stored in the SiteAndSiteAddress.txt/SubSiteAndSubSiteAddress.txt file.

In FGDB format, SitePolygonAndSiteName/SubSitePolygonAndSubSiteName is the feature class showing the geometry and properties of site/subsite. SiteAndSiteAddress/SubSiteAndSubSiteAddress is the attribute table storing the properties of site/subsite address. Both are stored in the <sheet>.gdb database.

In GML format, the .xsd files are the schema files for the corresponding .gml or .xml data files. The SitePolygonAndSiteName.gml/SubSitePolygonAndSubSiteName.gml is the data file storing the geometry and properties of site/subsite while the SiteAndSiteAddress.xml/SubSiteAndSubSiteAddress.xml stores the address information of the related site/subsite.

In DGN and DWG formats, the <sheet>.dgn and the <sheet>.dwg are the respective drawing files. The <sheet>.mdb contains the corresponding attribute tables, SitePolygonAndSiteName/SubSitePolygonAndSubSiteName and SiteAndSiteAddress/SubSiteAndSubSiteAddress, which provide site/subsite properties and address information respectively.

The database of iSG1000 consists of the following information:

Site Name Information

Site ID
Site Code
Site Name
Last Update Date
Coordinates of vertices of the polygon (ASCII)

Site Address Information

Site ID
Starting and Ending House Number
Address Type (Even, Odd or Sequential)
Street Code (street where the site is located)
Street Name
Last Update Date

SubSite Name Information

SubSite ID
Site ID
Site Code
Site Name
Last Update Date
Coordinates of vertices of the polygon (ASCII)

SubSite Address Information

SubSite ID
Starting and Ending House Number
Address Type (Even, Odd or Sequential)
Street Code (street where the subsite is located)
Street Name
Last Update Date

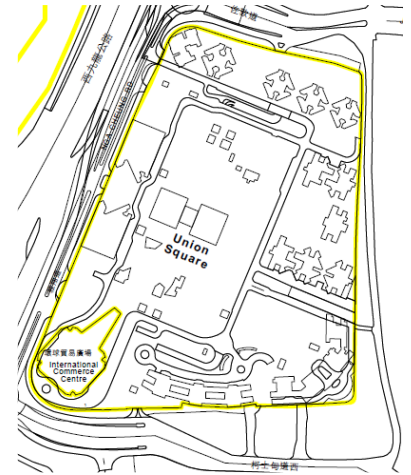
Examples (ASCII):

1) Content Sample of the vertices coordinates of the Site Polygon (SitePolygonAndSiteName_Coord.txt file) : *Union Square*

```

1503005133
834883.086      818221.133      0
...
834883.875      818221.257      0
834883.086      818221.133      0
    
```

← Site ID
 } List of vertices coordinates



(Topographic Map for reference only, not include in the iG1000 data)

2) Content Sample of Site Name (SitePolygonAndSiteName.txt file): *Union Square*

757,1503005133,79320,Union Square,,7/1/2014 12:00:00 AM

```

↑      ↑      ↑      ↑      ↑
Object ID  Site ID  Site Code  Site Name  Last Update Date
    
```

3) Content Sample of Site Address (SiteAndSiteAddress.txt file): *Union Square*

995,1503005133,,1,,1,,O,13926,AUSTIN ROAD WEST,柯士甸道西,7/1/2014 12:00:00 AM

```

↑      ↑      ↑      ↑      ↑      ↑      ↑
Object ID  Site ID  Starting House No.  Ending House No.  Street Code  Street Name  Last Update Date
    
```

4) Content Sample of the vertices coordinates of the SubSite Polygon (SubSitePolygonAndSubSiteName_Coord.txt file): *Union Square*

<p><u>SubSite 1</u></p> <pre> 1810001313 834738.744 818298.198 0 ... 834735.511 818290.511 0 834738.744 818298.198 0 </pre>	<p><u>SubSite 2</u></p> <pre> 1810001312 834631.662 818461.468 0 ... 834632.954 818464.601 0 834631.662 818461.468 0 </pre>	<p><u>SubSite 3</u></p> <pre> 1810001310 834888.670 818327.657 0 ... 834798.124 818364.972 0 834888.670 818327.657 0 </pre>
<p><u>SubSite 4</u></p> <pre> 1810001309 834895.586 818530.817 0 ... 834845.451 818551.517 0 834895.586 818530.817 0 </pre>	<p><u>SubSite 5</u></p> <pre> 1810001289 834895.586 818530.817 0 ... 834895.657 818532.712 0 834895.586 818530.817 0 </pre>	<p>← SubSite ID } List of vertices coordinates</p>

5) Content Sample of SubSite Name (SubSitePolygonAndSubSiteName.txt file): *Union Square*

SubSite 1: 9,1810001313,1503005133,79193,HARBOURSIDE,君臨天下,7/1/2014 12:00:00 AM

SubSite 2: 11,1810001312,1503005133,70312,THE CULLINAN,天璽,7/1/2014 12:00:00 AM

SubSite 3: 12,1810001310,1503005133,79562,THE ARCH,凱旋門,7/1/2014 12:00:00 AM

SubSite 4: 13,1810001309,1503005133,76603,THE WATERFRONT,濠日居,7/1/2014 12:00:00 AM

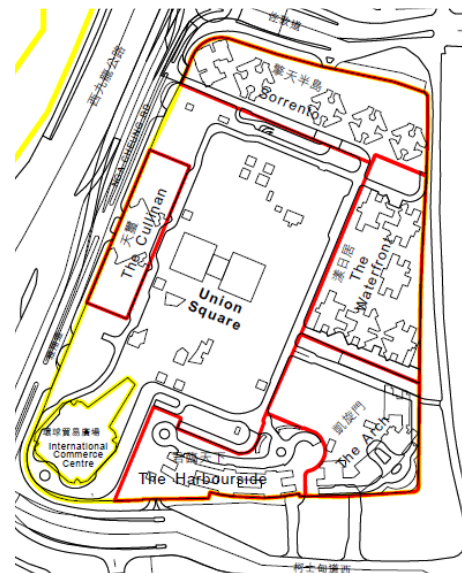
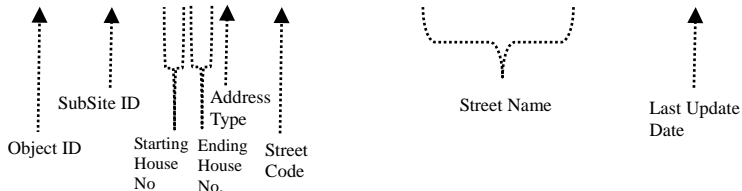
SubSite 5: 14,1810001289,1503005133,78982,SORRENTO,擎天半島,7/1/2014 12:00:00 AM

```

↑      ↑      ↑      ↑      ↑
Object ID  Sub-site ID  Site ID  Site Code  Site Name  Last Update Date
    
```

6) Content Sample of SubSite Address (SubSiteAndSubSiteAddress.txt file): Union Square

SubSite 1: 67,1810001313,,1,,,1,,O,13926,AUSTIN ROAD WEST,柯士甸道西,7/1/2014 12:00:00 AM
 SubSite 2: 66,1810001312,,1,,,1,,O,13926,AUSTIN ROAD WEST,柯士甸道西,7/1/2014 12:00:00 AM
 SubSite 3: 65,1810001310,,1,,,1,,O,13926,AUSTIN ROAD WEST,柯士甸道西,7/1/2014 12:00:00 AM
 SubSite 4: 74,1810001309,,1,,,1,,O,13926,AUSTIN ROAD WEST,柯士甸道西,7/1/2014 12:00:00 AM
 SubSite 5: 62,1810001289,,1,,,1,,O,13926,AUSTIN ROAD WEST,柯士甸道西,7/1/2014 12:00:00 AM

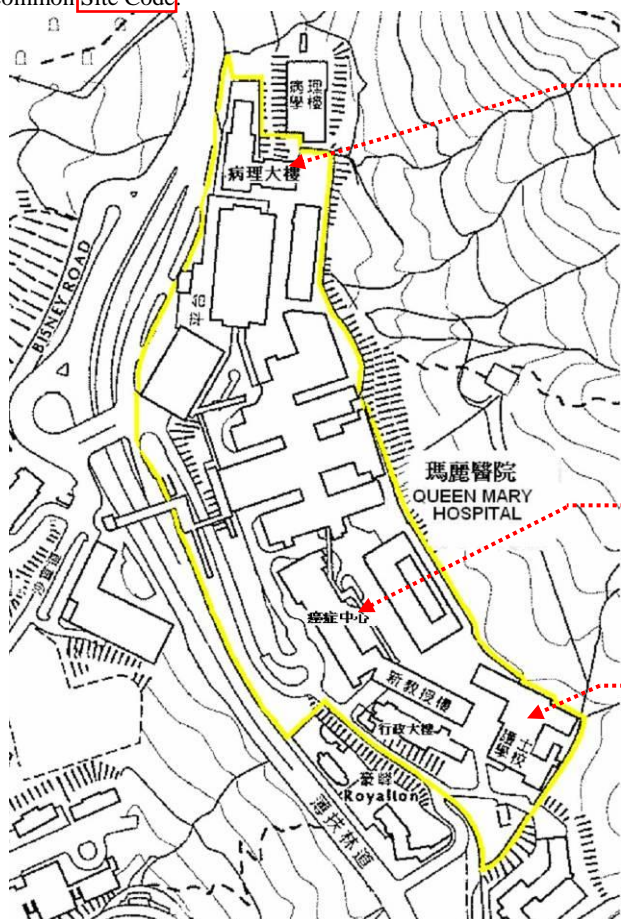


(Topographic Map for reference only, not include in the iG1000 data)

In the iSG1000 Digital Map, each site polygon is linked to its corresponding address by Site ID while subsite polygon is related to its corresponding address by SubSite ID. All subsite polygons should have one related site polygon and they are linked using the Site ID.

Special case (for example Queen Mary Hospital):

For building polygons that share the same address, e.g. buildings within one site polygon, the corresponding address information will be given in the same Site Polygon only. Complete address of the building in iBG1000 can be obtained from the linkage with the record in the iSG1000 by using the common Site Code.



Records of building name information in **iBG1000**:

- 1272.1103131309,Clinical Pathology Building,臨床病理大樓, 174.1, 143.3, 76251 7/1/2014 12:00:00 AM
- 1274.1103131437,Queen Mary Hospital Block K,瑪麗醫院K座, 253.8, 159.4, 76251 7/1/2014 12:00:00 AM
- 1275.1103131567,Queen Mary Hospital Block S,瑪麗醫院S座, 195.8, 138.4, 76251 7/1/2014 12:00:00 AM
- 1276.1103131960,Queen Mary Hospital Nurses' Quarters Block A,瑪麗醫院護士宿舍A座, 183.5,159.4, 76251 7/1/2014 12:00:00 AM
- 1271.1103132015,Cancer Centre,癌症中心,177.5,153, 76251 7/1/2014 12:00:00 AM
- 1273.1103132229,New Clinical Building,新教授樓,176.5,159.5, 76251 7/1/2014 12:00:00 AM
- 1277.1103132379,School of General Nursing,護士學校,191.2,159.5, 76251 7/1/2014 12:00:00 AM

Record carries the site polygon information in **iSG1000** :

337,1503015090,76251,QUEEN MARY HOSPITAL,瑪麗醫院,7/1/2014 12:00:00 AM

Site Code

The corresponding address information in **iSG1000** :

1359,1503015090,,102,,,102,,E,11768,POK FU LAM ROAD,薄扶林道,7/1/2014 12:00:00 AM

(C) Road Centre Line (iRG1000)

The database contains gazetted street, flyover, tunnel, by-pass, etc.

In ASCII format, the RoadCentreLine_Coord.txt file stores the coordinates of the vertices of the road centre line, while the corresponding textual information is stored in the RoadCentreLine.txt file.

In FGDB format, RoadCentreLine is the feature class showing the geometry and properties of road centre line. The feature is stored in the <sheet>.gdb database.

In GML format, the .xsd file is the schema file for the corresponding .gml data file. The RoadCentreLine.gml is the data file storing the geometry and properties of road centre line.

In DGN and DWG formats, the <sheet>.dgn and the <sheet>.dwg are the respective drawing files. The <sheet>.mdb contains the corresponding attribute table, RoadCentreLine, which provides road centre line information.

The database consists of the following information:

Street Centreline ID
 Street Name
 Street Code
 Last Update Date
 Coordinates of vertices of the line

Examples (ASCII):

1) Content sample of Road Centre Line (RoadCentreLine.txt file): QUEENSWAY

1308,1810272148,11807,QUEENSWAY,金鐘道,7/1/2014 12:00:00 AM

↑ ↑ ↑ ↑ ↑
 Object ID Street Centreline ID Street Code Street Name Last Update Date



(Topographic Map for reference only, not include in the iG1000 data)

2) Content sample of the vertices coordinates of the Road Centre Line (RoadCentreLine_Coord.txt file): QUEENSWAY

1810272148 ←----- Street Centreline ID
 835171.377 815463.973 0
 ...
 835250.715 815455.252 0

}----- List of vertices coordinates

Description of Site / Street Code

Site / Street Code	Description of Site / Street Code
10001-29999	Gazetted street
30001-39999	Flyover, tunnel, by-pass or street with ungazetted name
40001-59999	Road centre-line without street name
60001-69999	Village
70001-89999	Estate / Site of particular usage or public facility