



gis spatial definitions



Generated schema reference. Regenerate this page from the SQL unload; keep hand-maintained business notes in the narrative namespace.

Original SQL

```
-- IQX database structure split by table
-- Source: IQXDatabaseStructure - with comments.sql
-- Contents: __gis_spatial_definitions.sql
-- Statement count: 13

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-- Create user types
-----

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-- Create spatial units of measure
-----

CREATE SPATIAL UNIT OF MEASURE IF NOT EXISTS "degree"
  TYPE ANGULAR
  CONVERT USING .017453292519943
GO

CREATE SPATIAL UNIT OF MEASURE IF NOT EXISTS "Foot"
  TYPE LINEAR
  CONVERT USING .3048
GO

CREATE SPATIAL UNIT OF MEASURE IF NOT EXISTS "Kilometre"
  TYPE LINEAR
  CONVERT USING 1000
GO

CREATE SPATIAL UNIT OF MEASURE IF NOT EXISTS "meter"
  TYPE LINEAR
  CONVERT USING 1
```



GO

```
CREATE SPATIAL UNIT OF MEASURE IF NOT EXISTS "planar degree"
TYPE LINEAR
CONVERT USING 111120
```

GO

```
CREATE SPATIAL UNIT OF MEASURE IF NOT EXISTS "Statute Mile"
TYPE LINEAR
CONVERT USING 1609.344
```

GO

```
CREATE SPATIAL UNIT OF MEASURE IF NOT EXISTS "Yard"
TYPE LINEAR
CONVERT USING .9144
```

GO

-- Create spatial reference systems

```
CREATE SPATIAL REFERENCE SYSTEM IF NOT EXISTS "Default"
IDENTIFIED BY 0
ORGANIZATION 'SAP' IDENTIFIED BY 0
LINEAR UNIT OF MEASURE "metre"
TYPE PLANAR
SNAP TO GRID .000001
TOLERANCE .000001
AXIS ORDER 'x/y/z/m'
POLYGON FORMAT 'EvenOdd'
COORDINATE X BETWEEN -1000000 AND 1000000
COORDINATE Y BETWEEN -1000000 AND 1000000
```

GO

```
CREATE SPATIAL REFERENCE SYSTEM IF NOT EXISTS "OSGB IQX Modified"
IDENTIFIED BY 999999
ORGANIZATION 'EPSG' IDENTIFIED BY 999999
LINEAR UNIT OF MEASURE "metre"
TYPE PLANAR
SNAP TO GRID .00001
TOLERANCE .00001
AXIS ORDER 'x/y/z/m'
POLYGON FORMAT 'EvenOdd'
```



```
COORDINATE X BETWEEN 0 AND 660000
COORDINATE Y BETWEEN -820000 AND 1223382.6240472
DEFINITION 'PROJCS["OSGB 1936 / British National Grid",
GEOGCS["OSGB 1936",
    DATUM["OSGB_1936",
        SPHEROID["Airy
1830",6377563.396,299.3249646,AUTHORITY["EPSG","7001"]],
        AUTHORITY["EPSG","6277"]],
        PRIMEM["Greenwich",0,AUTHORITY["EPSG","8901"]],
        UNIT["degree",0.01745329251994328,AUTHORITY["EPSG","9122"]],
        AUTHORITY["EPSG","4277"]],
    UNIT["metre",1,AUTHORITY["EPSG","9001"]],
    PROJECTION["Transverse_Mercator"],
    PARAMETER["latitude_of_origin",49],
    PARAMETER["central_meridian",-2],
    PARAMETER["scale_factor",0.9996012717],
    PARAMETER["false_easting",400000],
    PARAMETER["false_northing",-100000],
    AUTHORITY["EPSG","27700"],
    AXIS["Easting",EAST],
    AXIS["Northing",NORTH]]'
    TRANSFORM DEFINITION '+proj=tmerc +lat_0=49 +lon_0=-2 +k=0.9996012717
+x_0=400000 +y_0=-100000 +ellps=airy +datum=OSGB36 +units=m +no_defs
+towgs84=446.448,-125.157,542.060,0.1502,0.2470,0.8421,-20.4894 +no_defs'
GO
```

```
CREATE SPATIAL REFERENCE SYSTEM IF NOT EXISTS "sa_octahedral_gnomonic"
IDENTIFIED BY 2147483647
ORGANIZATION 'SAP' IDENTIFIED BY 2147483647
LINEAR UNIT OF MEASURE "metre"
TYPE PLANAR
SNAP TO GRID .0000000000001
TOLERANCE .0000000000001
AXIS ORDER 'x/y/z/m'
POLYGON FORMAT 'EvenOdd'
COORDINATE X BETWEEN 0 AND 1
COORDINATE Y BETWEEN -1 AND 1
GO
```

```
CREATE SPATIAL REFERENCE SYSTEM IF NOT EXISTS "sa_planar_unbounded"
IDENTIFIED BY 2147483646
ORGANIZATION 'SAP' IDENTIFIED BY 2147483646
LINEAR UNIT OF MEASURE "metre"
TYPE PLANAR
SNAP TO GRID 0
TOLERANCE 0
```



```
AXIS ORDER 'x/y/z/m'  
POLYGON FORMAT 'EvenOdd'  
COORDINATE X BETWEEN -1.79769313E308 AND 1.79769313E308  
COORDINATE Y BETWEEN -1.79769313E308 AND 1.79769313E308
```

GO

```
CREATE SPATIAL REFERENCE SYSTEM IF NOT EXISTS "WGS 84"  
  IDENTIFIED BY 4326  
  ORGANIZATION 'EPSG' IDENTIFIED BY 4326  
  LINEAR UNIT OF MEASURE "metre"  
  ANGULAR UNIT OF MEASURE "degree"  
  TYPE ROUND EARTH  
  SNAP TO GRID 0  
  TOLERANCE 0  
  ELLIPSOID SEMI MAJOR AXIS 6378137 INVERSE FLATTENING 298.257223563  
  AXIS ORDER 'long/lat/z/m'  
  POLYGON FORMAT 'EvenOdd'  
  COORDINATE LATITUDE BETWEEN -90 AND 90  
  COORDINATE LONGITUDE BETWEEN -180 AND 180  
  DEFINITION 'GEOGCS["WGS 84",DATUM["WGS_1984",SPHEROID["WGS  
84",6378137,298.257223563,AUTHORITY["EPSG","7030"]],AUTHORITY["EPSG","6326"]  
],PRIMEM["Greenwich",0,AUTHORITY["EPSG","8901"]],UNIT["degree",0.01745329251  
994328,AUTHORITY["EPSG","9122"]],AUTHORITY["EPSG","4326"]]'  
  TRANSFORM DEFINITION '+proj=longlat +ellps=WGS84 +datum=WGS84 +no_defs'
```

GO

```
CREATE SPATIAL REFERENCE SYSTEM IF NOT EXISTS "WGS 84 (planar)"  
  IDENTIFIED BY 1000004326  
  ORGANIZATION 'EPSG' IDENTIFIED BY 4326  
  LINEAR UNIT OF MEASURE "planar degree"  
  ANGULAR UNIT OF MEASURE "degree"  
  TYPE PLANAR  
  SNAP TO GRID .0000000001  
  TOLERANCE .0000000001  
  ELLIPSOID SEMI MAJOR AXIS 6378137 INVERSE FLATTENING 298.257223563  
  AXIS ORDER 'long/lat/z/m'  
  POLYGON FORMAT 'EvenOdd'  
  COORDINATE LATITUDE BETWEEN -90 AND 90  
  COORDINATE LONGITUDE BETWEEN -180 AND 180  
  DEFINITION 'GEOGCS["WGS 84",DATUM["WGS_1984",SPHEROID["WGS  
84",6378137,298.257223563,AUTHORITY["EPSG","7030"]],AUTHORITY["EPSG","6326"]  
],PRIMEM["Greenwich",0,AUTHORITY["EPSG","8901"]],UNIT["degree",0.01745329251  
994328,AUTHORITY["EPSG","9122"]],AUTHORITY["EPSG","4326"]]'  
  TRANSFORM DEFINITION '+proj=longlat +ellps=WGS84 +datum=WGS84 +no_defs'
```

GO



From:

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