

bentleyuser.dk årsmøde 2012

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# **BENTLEY MAP OG ORACLE SPATIAL DATABASE**

# Agenda

- ⦿ Opsætning af spatiale tabeller i Oracle
- ⦿ GDAL ogr2ogr
- ⦿ Geospatial Administrator
  - Oracle
  - SQL Server
  - WFS
- ⦿ 3D BIM eksempel
  - Spatial views
  - Lookup tables
- ⦿ Demo Solar Exposure Calculator

# Oracle

```
CREATE TABLE KOMMUNE (  
  ID      NUMBER PRIMARY KEY,  
  GEOM    MDSYS.SDO_GEOMETRY  
)  
/
```

```
CREATE SEQUENCE KOMMUNE_SEQ  
/
```

```
CREATE TABLE KOMMUNE (  
  ID      VARCHAR2(64) PRIMARY KEY,  
  GEOM    MDSYS.SDO_GEOMETRY  
)
```

# Oracle

```
INSERT INTO USER_SDO_GEOM_METADATA (TABLE_NAME,  
COLUMN_NAME, DIMINFO, SRID)  
VALUES (  
    'KOMMUNE',  
    'GEOM',  
    MDSYS.SDO_DIM_ARRAY(  
        MDSYS.SDO_DIM_ELEMENT('X', -100, 100, 0.0005),  
        MDSYS.SDO_DIM_ELEMENT('Y', -100, 100, 0.0005)  
    ),  
    25832  
)
```

```
CREATE INDEX KOMMUNE_IDX ON KOMMUNE(GEOM)  
INDEXTYPE IS MDSYS.SPATIAL_INDEX PARAMETERS  
(layer_gtype=MULTIPOLYGON sdo_indx_dims=2)
```

# GDAL: ogr2ogr

## ◎ Oracle

- `ogr2ogr -f OCI OCI:scott/tiger@orcl  
WFS:http://geoservice.plansystem.dk/wfs kommune -lco  
DIM=2 -lco SRID=25832`
- Tilføj Primær nøgle
- Fjern "" fra kolonnenavne

## ◎ SQL Server

- `ogr2ogr -f MSSQLSpatial  
MSSQL:"server=localhost\sqlexpress;database=Demo;tru  
sted_connection=yes"  
WFS:http://geoservice.plansystem.dk/wfs kommune`

## ◎ PostGIS

- `ogr2ogr -f PostgreSQL PG:"dbname=postgis  
user=postgres password=postgres"  
WFS:http://geoservice.plansystem.dk/wfs kommune`

# 3D BIM eksempel

- ⦿ Lookup tabeller tilføjes til MSCATALOG
- ⦿ Operationer på spatial view udføres gennem triggers:
  - Insert
  - Update
  - Delete

Default 0 0 0 0 0 0

Tasks

Tasks

Print Preparation

Drawing

Drawing Composition

Solids Modeling

Surface Modeling

Mesh Modeling

Feature Modeling

Visualization

Animation

Tasks Fit View

View 1 - Isometric, Default - Zoom Scale = 1:966

Session

- TEK\_Bygning\_farv

Default Views

1 2 3 4 5 6 7 8

X 724718.7678 Y 6179360.6713 Z 22.0150

Default 0 0 0 0 0 0

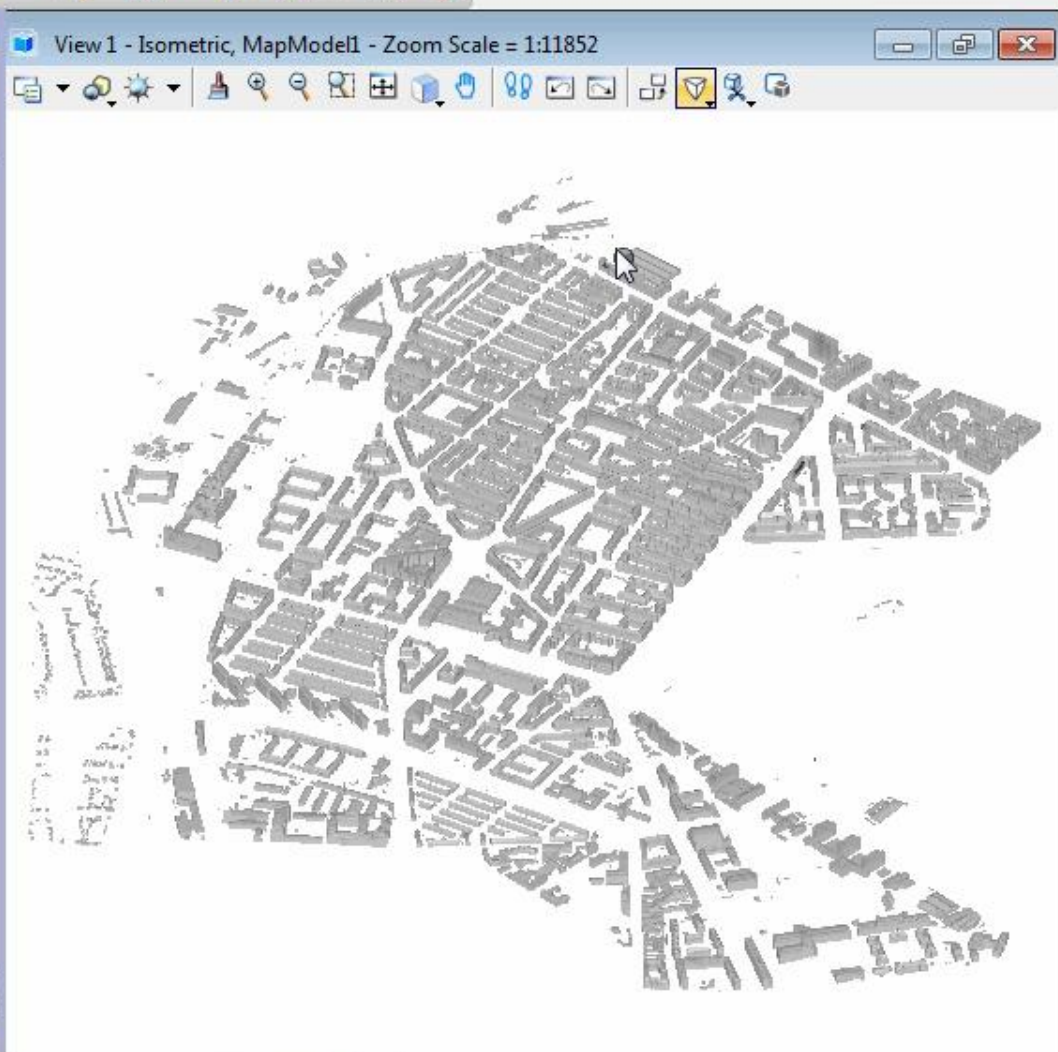
Map Manager

View 1 - Isometric, MapModel1 - Zoom Scale = 1:11852

Map Layers

- Layers
  - TEK\_Bygning\_\_farvet\_
  - Solar

Tasks Element Select... Map Manager



Session

- TEK\_Bygning\_\_farvet\_

MapModel1 Temp

X 723877.6272 Y 6179083.7285 Z 157.7815