

BZ10M: Bolzano Roads 2 (New) Network - Network Data Model

Import

```
imp user/pass file=/bz10m/roads2_network-1.0.dmp full=y
```

Create network (needs to be done once):

```
INSERT INTO USER_SDO_NETWORK_METADATA(  
    network, network_category, geometry_type,  
    node_table_name, node_geom_column,  
    link_table_name, link_geom_column,  
    link_cost_column, link_direction)  
VALUES(  
    'BZ_ROADS2_NET', 'SPATIAL', 'SDO_GEOMETRY',  
    'BZ_ROADS2_NODE$', 'GEOMETRY',  
    'BZ_ROADS2_LINK$', 'GEOMETRY',  
    'COST', 'UNDIRECTED');
```

Current version: 1.0 (1/10/2008)

This is the TeleAtlas table we got from the Creaform on November the 12th. The table contains linestrings (in GEOMETRY column), which represent roads segments. The most important change here is the number of lanes (NUMCORSIE). Whenever NUMCORSIE=0, it is assumed NUMCORSIE=2 (one lane per one direction, bi-directed road).

The imported network data model will contain two tables: BZ_ROADS_LINK\$ and BZ_ROADS_NODE\$. The links are taken directly from the [Spatial table](#) road segments (linestrings). The nodes are created by generating a node for each segment start and end points.

Columns of the table

We are working on the meanings of the columns:

BZ_ROADS:

LINK_ID	
LINK_NAME	
START_NODE_ID	
END_NODE_ID	
LINK_TYPE	
ACTIVE	
LINK_LEVEL	
GEOMETRY	
COST	
BIDIRECTED	
GC_ID	

GC_CODICE	
GC_CODAGGR	
GC_QMED	
GC_COUNT	
GC_SVIL	
ID	
FEATTYP	
FT	
F_JNCTID	
F_JNCTTYP	
T_JNCTID	
T_JNCTTYP	
PJ	
METERS	
FRC	
NET1CLASS	
NET2CLASS	
NAME	
NAMELC	
SOL	
JUMP	
ROUTENUM	
RTETYP	
RTEDIR	
RTEDIRVD	
PROCSTAT	
COD_REG	
COD_PROV	
COD_COM	
GC_DESCR	
LONG1	
LONG2	
IDASSE	
LST_ONEWAY	
LST_PUT	
ID_STRASSE	
TEXT_D	
TEXT_I	
TEXT_DIL	
ANNOTAZION	
NODO_VL	
CORSIABUS	
NUMCORSIE	Number of lanes. When =0, means there are two lanes (one per direction)
NODO_MT	

Explanations from an old table (may not match):

ID	long integer, the ID for each road segment
FEATTYP	?
FT	?
F_JNCTID	?
F_JNCTTYP	?
T_JNCTID	?
T_JNCTTYP	?
PJ	?
METERS	Length of a segment in meters, rounded up to the hundredth part. See LENGTH
FRC	?
NETCLASS	?
NETBCCLASS	?
NET2CLASS	?
NAME	Name of the street/highway number
NAMELC	?
SOL	?
NAMETYP	?
CHARGE	?
ROUTENUM	Highway number
RTETYP	?
RTEDIR	?
RTEDIRVD	?
PROCSTAT	?
FOW	?
SLIPRD	?
BACKRD	?
TOLLRD	?
RDCOND	?
STUBBLE	?
PRIVATERD	?
CONSTATUS	?
ONEWAY	<p>Road type. Looks utterly incomplete. FT-one way street N-only for bus or cycle (transit limited e.g. Downtown)</p> <p>From the old database documentation (sent by Linas): DW = Double Way FT = One Way (you must symbolize with an arrow) N = only for bus or cycle (transit Limited e.g. Downtown) E = Motorway or Expressway (autostrada del Brennero A22) FE = Subway or Tunnel FG = not consider</p>
F_BP	?
T_BP	?
F_ELEV	?
T_ELEV	?
KPH	Speed limit

MINUTES	Calculated column: amount of time in minutes which takes to drive the road segment, when driving at the speed limit
POSACCUR	?
CARRIAGE	?
LANES	Number of lanes. Utterly incomplete (98.7% are zeroes)
LENGTH	The length of the road in meters, precise up to a thousandth part

Creating index

If you want to use any spatial operators (such as finding all segments within distance, retrieving bounding rectangle etc.) you need to create an index for this table. How to do this for the LINK table (same for NODE, just substitute LINK\$ with NODE\$):

```
DELETE FROM USER_SDO_GEOM_METADATA WHERE TABLE_NAME='BZ_ROADS2_LINK$';
INSERT INTO USER_SDO_GEOM_METADATA(TABLE_NAME, COLUMN_NAME, DIMINFO, SRID)
VALUES ('BZ_ROADS2_LINK$', 'GEOMETRY',
        SDO_DIM_ARRAY(SDO_DIM_ELEMENT('X', 0, 0, .001),
                      SDO_DIM_ELEMENT('Y', 0, 0, .001)),
        82344)
);
CREATE INDEX BZ_ROADS2_LINK$_INDEX ON BZ_ROADS2_LINK$(GEOMETRY) INDEXTYPE IS
MDSYS.SPATIAL_INDEX;
```

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