POSTGIS 2.0.0 PGSQL2SHP SHP2PGSQL CHEAT SHEET

shp2pgsql and pgsql2shp are all located in the bin folder of the PostgreSQL install.

pgsql2shp dumps a postgis database table, view or sql query to ESRI shape file format.

USAGE: pgsql2shp [OPTIONS] database [schema.]table pgsql2shp [OPTIONS] *database query*

shp2pgsql generates an SQL script from ESRI shape and DBF files suitable for loading into a PostGIS enabled database.

USAGE: shp2pgsql [*OPTIONS*] *shapefile* [*schema.*]*table*

New in 2.0.0 [1], New in 1.5[2]

General options: (P - pgsql2shp, S - shp2pgsql)

P		-b	Use a binary cursor.
	S	-s *from_srid:to_srid*	If -s :to_srid [1] is not specified then from_srid is assumed and no transformation happens.
	S	(-d|a|c|p)	These are mutually exclusive options:
	S	-d	Drops the table, then recreates it and populates it with current shape file data.
	S	-a	Appends shape file into current table, must be exactly the same table schema.
	S	-c	Creates a new table and populates it, default if you do not specify any options.
	S	-p	Prepare mode, only creates the table.
P		-f *filename*	Use this option to specify the name of the file to create
P	S	-g *geometry_column_name*	Specify the name of the geometry column to be (S) created (P) exported.
P		-h *hostname*	Specify db server host name defaults to localhost.
	S	-D	Use postgresql dump format (defaults to sql insert statments).
	S	-e	Execute each statement individually, do not use a transaction. Not compatible with -D
P	S	-k	Keep postgresql identifiers case.
	S	-i	Use int4 type for all integer dbf fields.
	S	-I	Create a GiST index on the geometry column.
	S	-p *port*	Allows you to specify a database port other than the default. Defaults to 5432.
P		-P *password*	Connect to the database with the specified password.
P		-r	Raw mode. Do not unescape attribute names and not skip the 'gid' attribute.
P		-S	Generate simple geometries instead of MULTI geometries.
	S	-u *user*	Connect to the database as the specified user.
P		*-w*	Use wkt format (for postgis-0.x support - drops M - drifts coordinates).
	S	*-W*	*encoding* The character encoding of Shape's attribute column. (default : "UTF-8")
	S	*-N*	
	S	*-n*	*policy* Specify NULL geometries handling policy (insert,skip,abort)
	S	*-G*[2]	Only import DBF file.
	S	*-T*[1]	Use geography type instead of geometry (requires lon/lat data) in WGS84 long lat (-s SRID=4326)
	S	*-X*[1]	Specify the tablespace for the new table. Indexes will still use the default tablespace unless the -X parame
	S		Specify the tablespace for the new index.
P		*-m*[1] *filename*	Remap identifiers to ten character names. The content of the file is lines of two symbols separated by a sin
P	S	*-?*	Display this help screen

PSQL Connection options:

```
  -h, --host=HOSTNAME      database server host or socket directory
  -p, --port=PORT          database server port number
  -U, --username=NAME      connect as specified database user
  -W, --password           force password prompt (should happen automatically)
  -e, --exit-on-error      exit on error, default is to continue

If no input file name is supplied, then standard input is used.
```

LOADING DATA WITH SHP2PGSQL

Load data into PostgreSQL from ESRI shape file MA stateplane feet

```
shp2pgsql -s 2249 neighborhoods public.neighborhoods > neighborhoods.sql
psql -h myserver -d mydb -U myuser -f neighborhoods.sql
```

Do above in one step

```
shp2pgsql -s 4326 neighborhoods public.neighborhoods | psql -h myserver -d mydb -U myuser
```

Load data into PostgreSQL from ESRI shape file MA stateplane feet to geography

```
shp2pgsql -G -s 2249:4326 neighborhoods public.neighborhoods > neighborhoods_geog.sql
psql -h myserver -d mydb -U myuser -f neighborhoods_geog.sql
```

Sample linux sh script to load tiger 2007 massachusetts edges and landmark points

```
TMPDIR="/gis_data/staging"
STATEDIR="/gis_data/25_MASSACHUSETTS"
STATESCHEMA="ma"
DB="tiger"
USER_NAME="tigeruser"
cd $STATEDIR
#unzip files into temp directory
for z in */*.zip; do unzip -o -d $TMPDIR $z; done
for z in *.zip; do unzip -o -d $TMPDIR $z; done

#prepare the tables don't load data
#force non-multi and set the geometry column name to the_geom_4269, dbf is in latin1 encoding
shp2pgsql -s 4269 -g the_geom_4269 -S -W "latin1" -p fe_2007_25025_edges.shp ${STATESCHEMA}.edges | psql -U $USER_NAME -d $DB
shp2pgsql -s 4269 -g the_geom_4269 -S -W "latin1" -p fe_2007_25025_pointlm.shp ${STATESCHEMA}.pointlm | psql -U $USER_NAME -d $DB

#loop thru pointlm and edges county tables and append to respective ma.pointlm ma.edges tables
for t in pointlm edges;
do
 for z in *${t}.dbf;
  do
        shp2pgsql  -s 4269 -g the_geom_4269 -S -W "latin1" -a $z ${STATE_SCHEMA}.${t} | psql -d $DB -U $USER_NAME;
  done
done
```

OUTPUTING TO ESRI SHAPEFILE/DBF WITH PGSQL2SHP

Export query to a shape file called jpnei.shp/dbf

```
pgsql2shp -f "/path/to/jpnei" -h myserver -u apguser -P apgpassword mygisdb
        "SELECT neigh_name, the_geom FROM neighborhoods WHERE neigh_name = 'Jamaica Plain'"
```

Export a table in ma schema called streets to streets.shp/dbf

```
pgsql2shp -f "/path/to/streets" -h myserver -u apguser -P apgpassword mygisdb ma.streets
```

Boston GIS   Paragon Corporation   Postgres OnLine Journal PostGIS in Action