LDS Replicate

Installation and Usage guide

Install

1. Double click the setup icon “lds-replicate-setup-win32-r0.0.6.exe”
2. Agree to T&C’s
3. Select components to install (select them all as the application has been tested with the included libraries and no additional path setup will be required)
4. Set the installation folder.
5. Set the name of the Program shortcut
6. Install
7. Add Environment variables (If you use the GUI or batch scripts to start the application these won’t be needed)
8. Close

Usage

1. Open the GUI

To open the GUI use the menu command or locate and double-click “ldsreplicate_gui.cmd” (nominally located here; C:\Program Files\LDSReplicate\ldsreplicate_gui.cmd)

2. Fill the appropriate fields in the GUI

Destination
Select from PostgreSQL, MSSQL, SQLite or FileGDB.

Layer/Group
Choose the type of download you wish to initiate selecting either Layer or Group from the dropdown box

Layer/Group Name
Type in the name of the layer or a preconfigured group. Layer names can be entered using their LDS Layer ID (v:x####) or the LDS Layer Name. Note; The layer name will be simplified to a database compatible format.

User Config
Enter the name of your user config. The user config will be stored in the application conf directory and have a .conf suffix appended. You can enter the full path to this file or just

enter the first part of the file name here. If you enter the name of a file that does not exists you will be prompted to create a new user config.

User Config Wizard
The user config wizard will be displayed when creating a new User Config or it can be accessed from the menu under ‘File>User Wizard’.
Opening this wizard will prompt for the appropriate User Config entries including LDS API Key, proxy details and database connection details

EPSG
Enter your desired Spatial Reference using the appropriate EPSG. Layers downloaded from LDS will be converted to this SR. the default is 2193, NZTM.

From/To Date
If you require data over a specific date range, enable and select the required dates here. Normally the application will record your last update and select the appropriate dates itself. If however you database becomes unsynchronised (e.g. by losing your config file) this feature may be useful.

Internal
Setting this checkbox instructs the application to construct your layer config file inside your database instead of as an external file. This may be useful in situation where shared access for multiple users is preferred.

Initialise (Layer Select)
Clicking this button will open the Layer Config dialog. This must be done at least once to initialise the Layer Config file which is read from the LDS Capabilities document. If it has not been initialised you will be prompted to do this.
Note; Each destination has its own Layer Config (file/table) and will be named, for example, “postgresql.layer.properties” if saved as a file or “lds_config” in the case of an internal table.

Layer Config Dialog
The Layer Config dialog is used to select layers you want into named groups. This is optional and to initialise the Layer Config file all you have to do is click Finish.
Groups are created by selecting the desired layers in the ‘Available’ left hand pane and swapping them over to the Right hand side ‘Selection’ pane. The selected layers are then tagged by entering a keyword of your choice and clicking the add (‘+’) button. Similarly, user keywords may be queried using the inspect (‘?’) button or deleted using the delete (‘-‘) button.
The layers in the Available pane can be filtered using the filter box below this pane. (This filter operates over both the Name and Title fields of the layer).
Highlighted entries layers indicate the presence of a primary key on the layer. These layers are able to use the GDAL paging mechanism and less likely to have

download problems. They are also (though not exclusively) able to be queried incrementally.
Note. Changes are saved at each add/del step rather than using a final commit when Finish is clicked.

Replicate
Clicking this button will trigger a download copying your requested layers to the configured output.

Clean
Clicking clean will truncate (delete) the selected layers. Use caution here.

3. Click Replicate

Examples
1. NZ Primary Parcels

The code for Primary Parcels is v:x772. Select Layer from the Group/Layer dropdown and enter "v:x772" or the string "NZ Primary Parcels" into the Layer text entry. Click Replicate to run.

Using the command line we would enter something like:

```
cd c:\Program Files\LDS Replicate\
ldsreplicate.cmd –u apps\ldsreplicate\conf\ms.conf –l v:x772 ms
```

This assumes we have already created a valid user config file, ms.conf, and MSSQL layer config file, mssqlspatial.layer.properties

2. Clipped Region

The GUI doesn't directly support addition of CQL commands into LDS request strings though these can be specified on the command line or in the layer config.

Per layer we add a cql string to the appropriate layer in the respective layer config file e.g.

```
[v:x1000]
pkey =
name = NZ Aerial Survey Footprints, Mainland NZ, (1936-2005) polygons
category = New Zealand,Imagery,Topographic
lastmodified =
geocolumn = shape
index = spatial
epsg =
discard =
cql = within(shape,geomFromWkt(POLYGON(<some-geometry>)))
```

Running a replication job from the either GUI or the command line for layer v:x1000 will now include the above CQL in the WFS request to LDS.

Alternatively, using the command line option we simply call the program specifying the required CQL with the –c option

e.g.
ldsreplicate.cmd –u apps\ldsreplicate\conf\ms.conf –l v:x1000 –c
within(shape,geomFromWkt(POLYGON(...))) ms

NB. CQL statements on the command line override those in the layer config
NB. CQL statements are minimally validated and it is possible to enter an invalid command string

3. Further Command Line Examples

#772 = nz_primary_parcels
ldsreplicate.cmd -u default.conf -l v:x772 -e 2193 -c
within(shape,geomFromWkt(POLYGON((...)))) init ms

#793 = nz_road_centre_line_subsections_electoral
ldsreplicate.cmd -u default.conf -l v:x793 -e 2193 -c
within(shape,geomFromWkt(POLYGON((...)))) ms

#779 = nz_street_address_electoral
ldsreplicate.cmd -u default.conf -l v:x779 -e 2193 -c
within(shape,geomFromWkt(POLYGON((...)))) ms

#787 = nz_geodetic_marks
ldsreplicate.cmd -u default.conf -l v:x787 -e 2193 -c
within(shape,geomFromWkt(POLYGON((...)))) ms

#1569 = nz_title_parcel_association_list
ldsreplicate.cmd -u default.conf -l v:x1569 ms

#1567 = nz_property_titles_list
ldsreplicate.cmd -u default.conf -l v:x1567 ms

#1564 = nz_property_titles_owners_list
ldsreplicate.cmd -u default.conf -l v:x1564 ms

#1566 = nz_property_title_estates_list
ldsreplicate.cmd -u default.conf -l v:x1566 ms

#785 = nz_land_districts
ldsreplicate.cmd -u default.conf -l v:x785 -e 2193 -c
within(shape,geomFromWkt(POLYGON((...)))) ms

Notes.
This application has not been fully tested in certain proxy environments