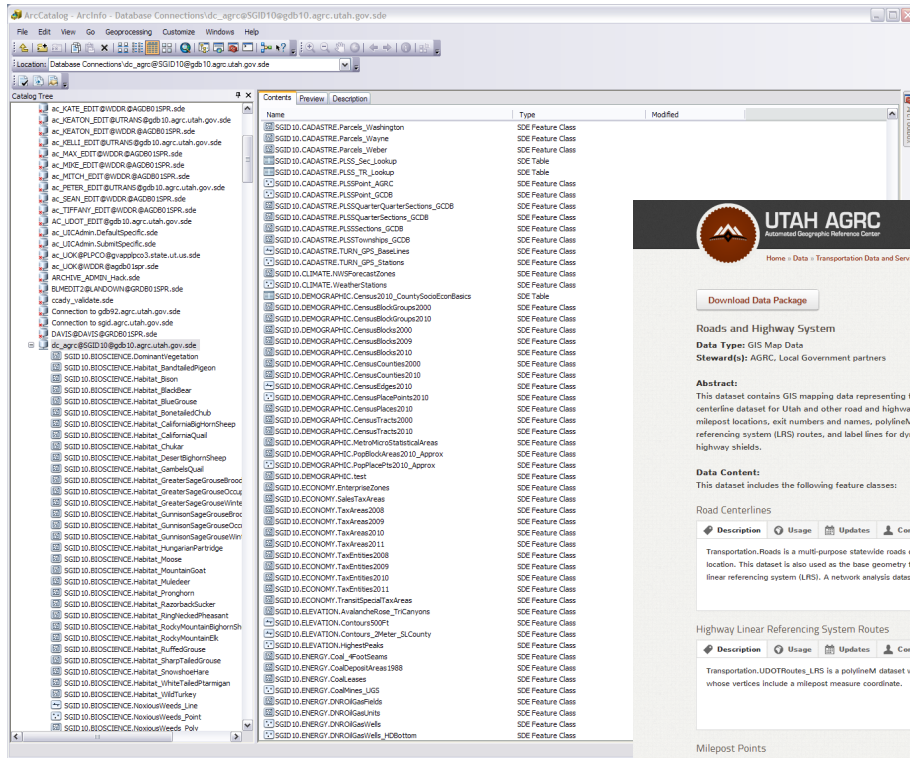


AGRC Base Map Caching An Exercise in Insanity



AGRC Data Resources



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Home » Data » Transportation Data and Services » Roads and Highway System

Download Data Package

Roads and Highway System

Data Type: GIS Map Data
Steward(s): AGRC, Local Government partners

Abstract:
This dataset contains GIS mapping data representing the state-wide roads centerline dataset for Utah and other road and highway related data such as milepost locations, exit numbers and names, polylineM highway linear referencing system (LRS) routes, and label lines for dynamic rendering of highway shields.

Data Content:
This dataset includes the following feature classes:

- Road Centerlines
- Highway Linear Referencing System Routes
- Milepost Points

Download available at gis.utah.gov

Add Image Server Connection

Server Name: IMAGE.AGRC.UTAH.GOV Get Services

Services

Only show services available in the current view's extent

- IMAGE.AGRC.UTAH.GOV
 - AerialPhotography_BlackWhite
 - AerialPhotography_Color
 - HRO2009_ColorIFoot
 - HRO2009_ColorIFoot
 - HRO2009_WestJordan_ColorIFinch
 - NAIP2004_Color1Meter
 - NAIP2006_Color1Meter
 - NAIP2009_Color1Meter
 - NAIP2009_Color1Meter_#Band
 - NAIP2011_Color1Meter_#Band

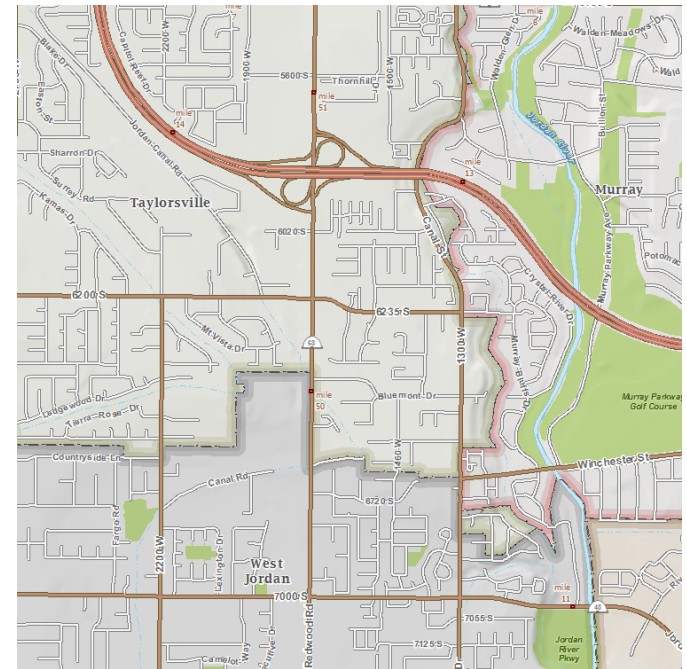
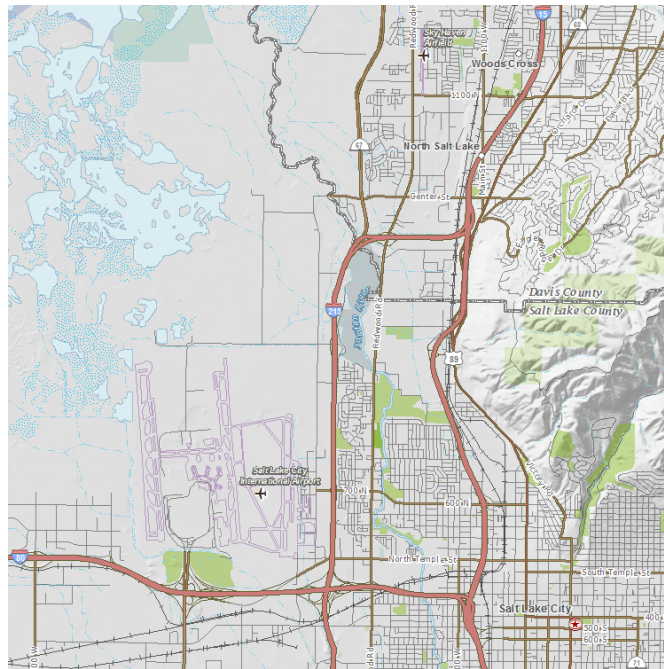
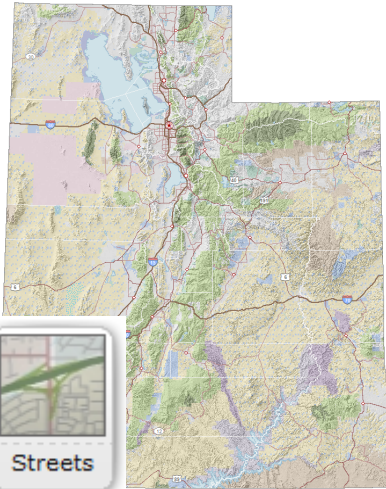
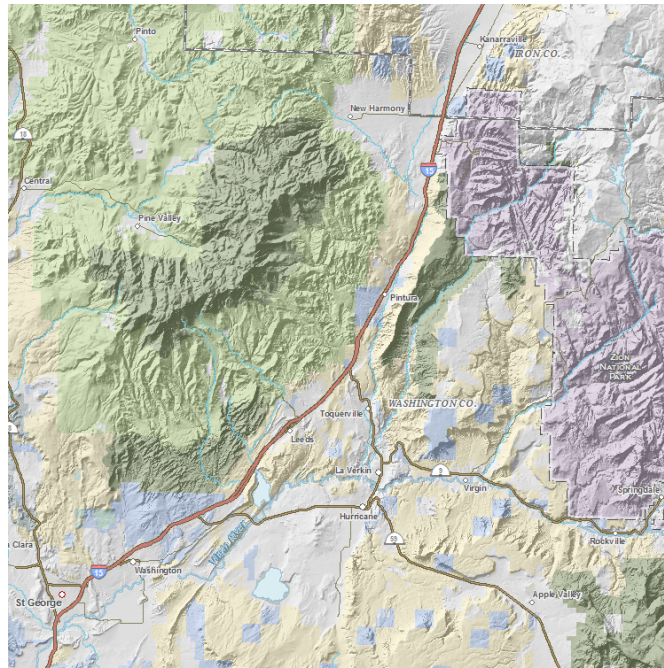
Selected Services

- ImageService://IMAGE.AGRC.UTAH.GOV/AerialPhotography_Color#HRO2009_ColorIFoot
- ImageService://IMAGE.AGRC.UTAH.GOV/AerialPhotography_Color#NAIP2011_Color1Meter_#Band

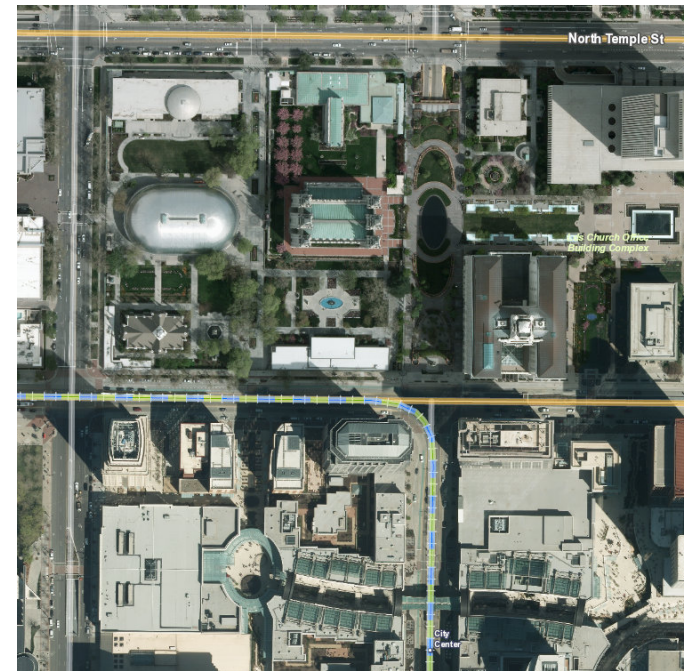
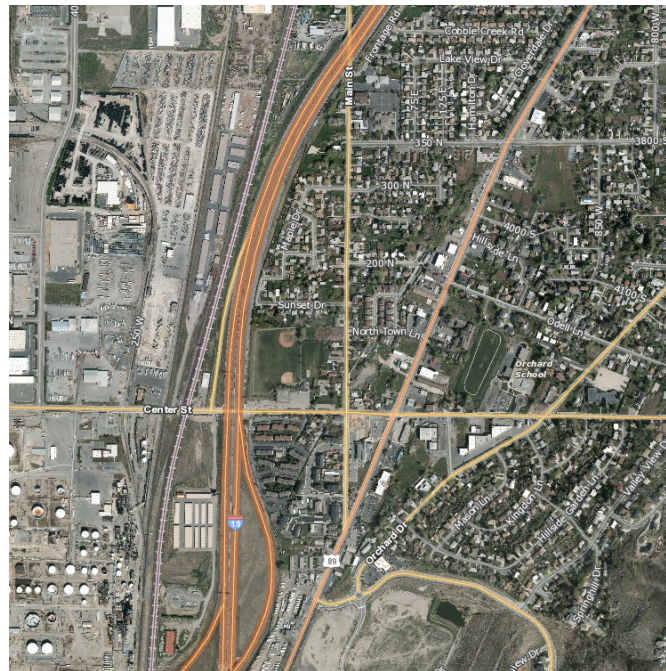
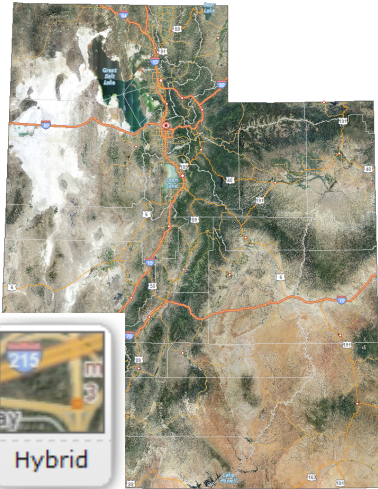
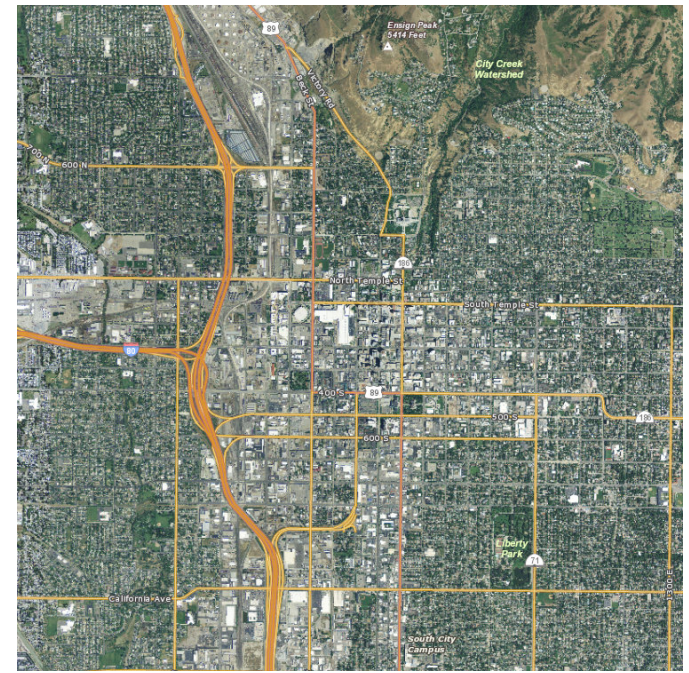
Remove Browse OK Cancel

Public Image Server

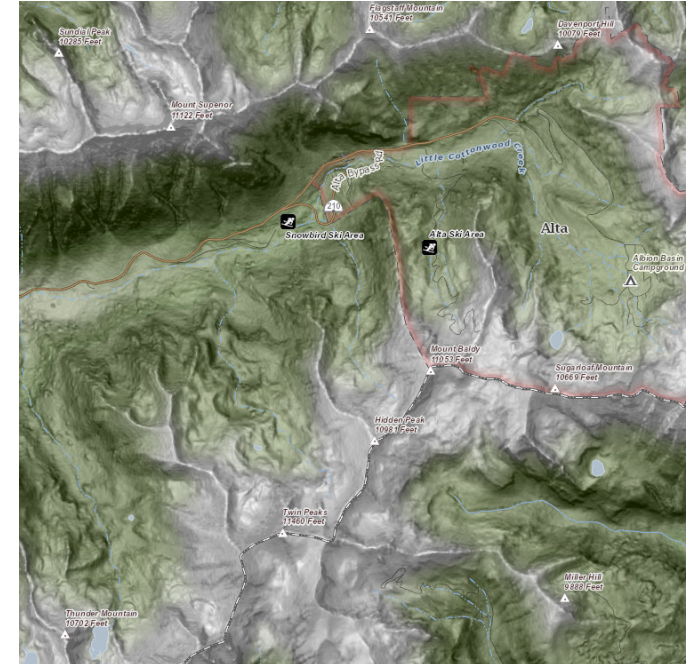
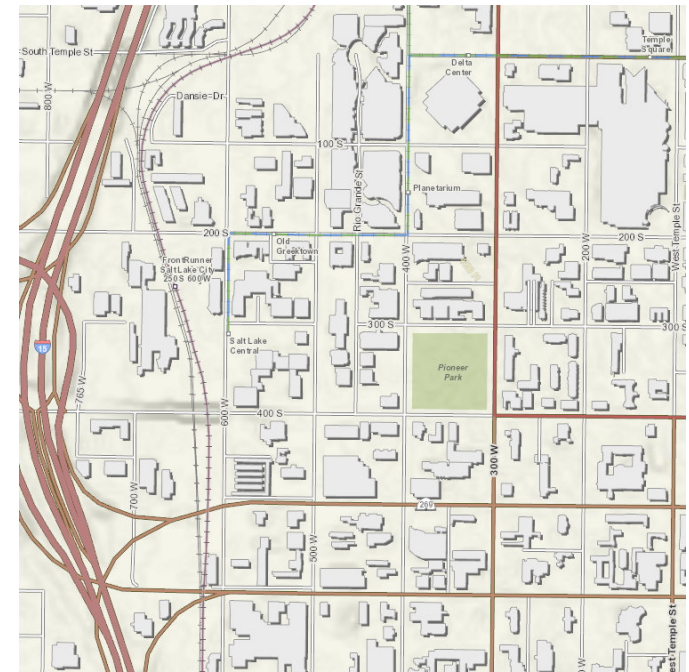
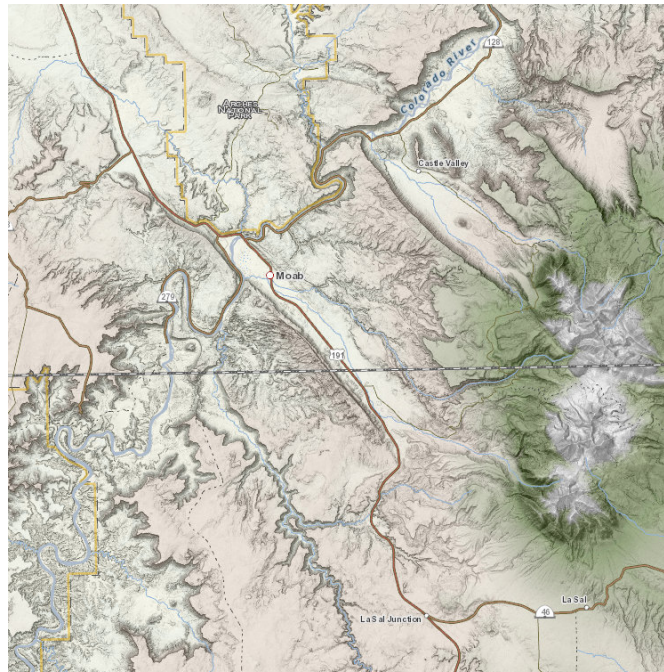
Streets Base Map



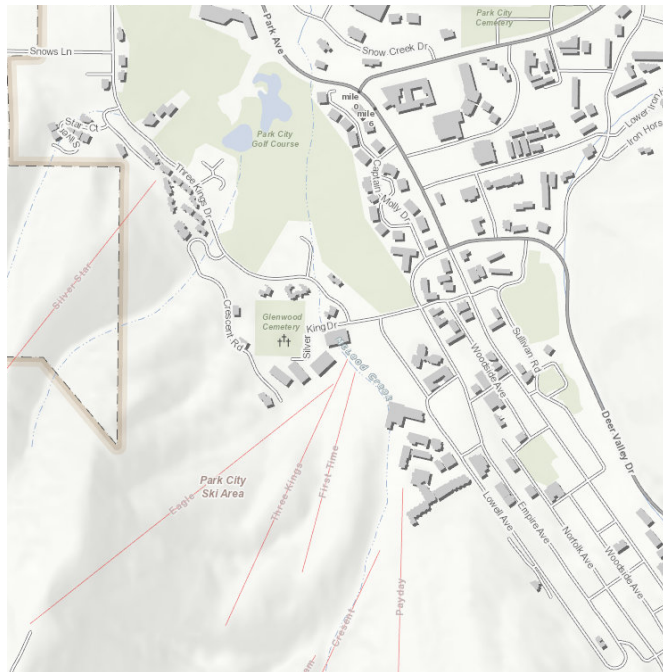
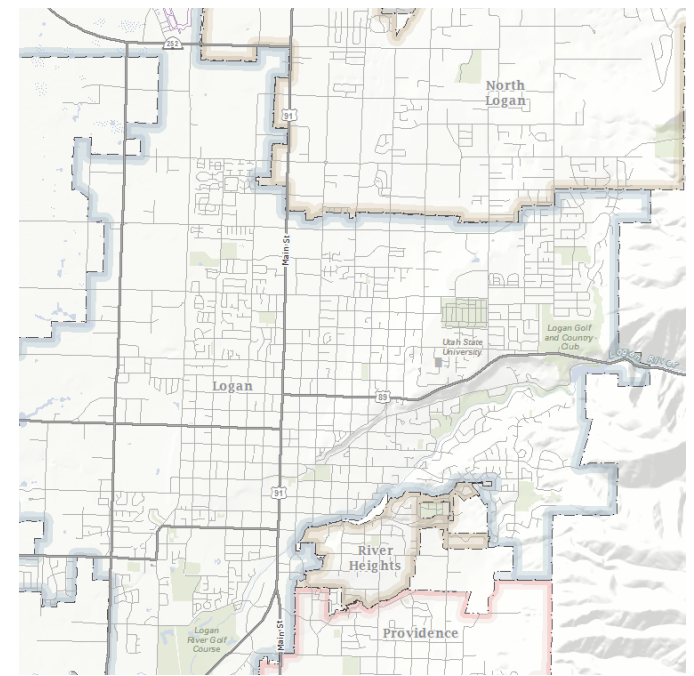
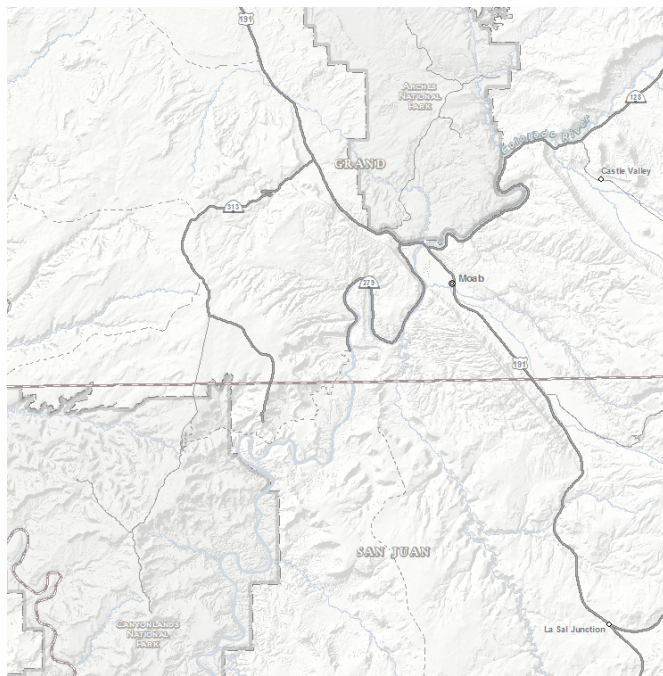
Hybrid Base Map



Terrain Base Map



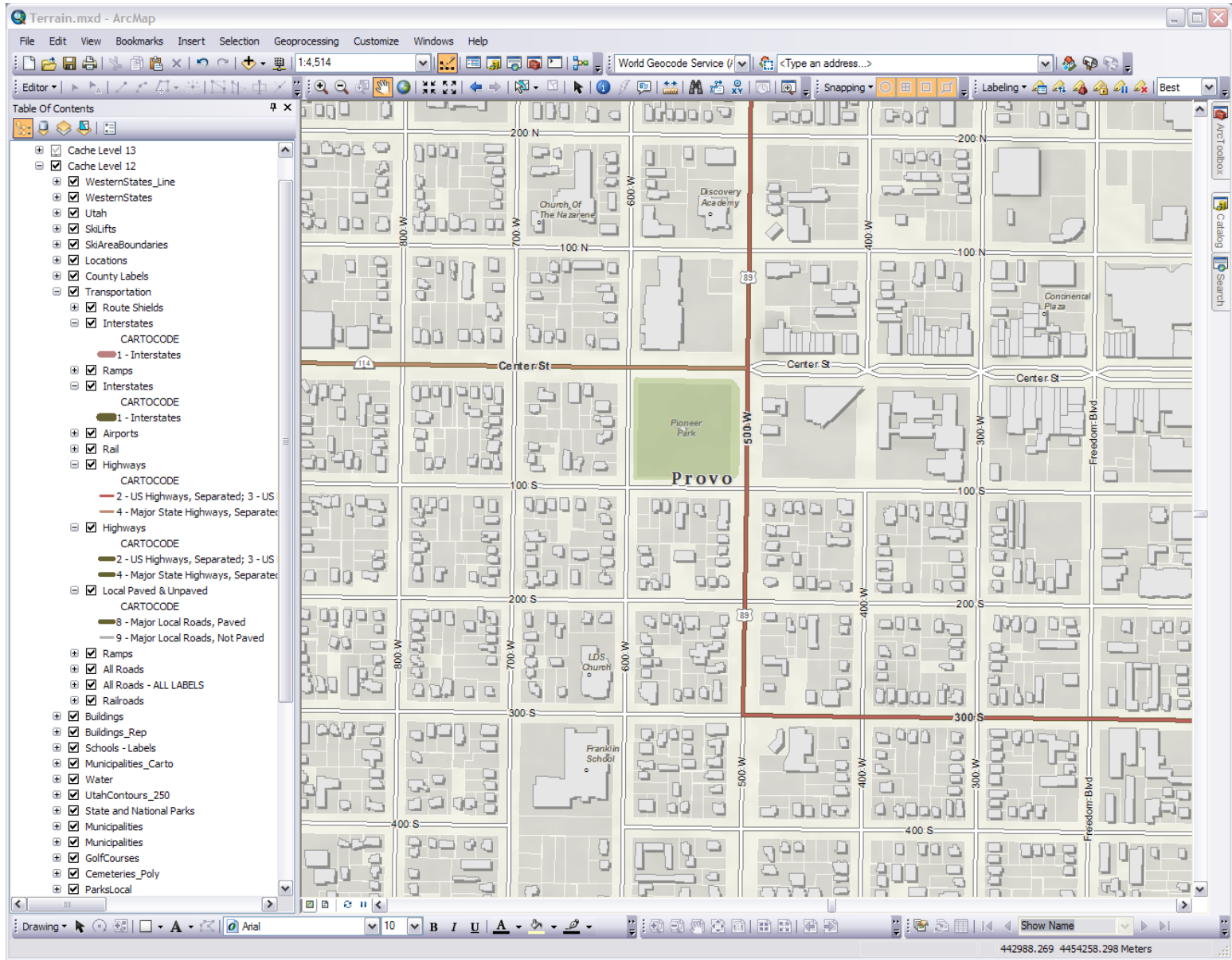
Lite Base Map



Cache MXD Structure

AGRC Level	Google Tile Scale
14	1128.497176
13	2256.994353
12	4513.988705
11	9027.977411
10	18055.954822
9	36111.909643
8	72223.819286
7	144447.638572
6	288895.277144
5	577790.554289
4	1155581.108577
3	2311162.217155
2	4622324.434309
1	9244648.868618
0	18489297.737236

Cache MXD Structure



Cache MXD Structure

	Layers	Group Layers
Vector	678	100
Hybrid	328	96
Terrain	666	134
Lite	571	97

Unique Layers	
Airports	Municipalities
BoatRamps	Municipalities_Carto
Buildings	NatlMonuments
Cemeteries	Parcels
Cemeteries_Poly	ParksLocal
Cities	PlacesOfWorship
CommuterRailRoute_UTA	PlaceNamesGNIS2010
CommuterRailStops_UTA	Railroads
Counties	Roads
Counties_LabelLines	Route Shields
DEM_10METER	Schools
GolfCourses	SkiAreaBoundaries
GrandStaircaseEscalanteNM	SkiLifts
Hillshade_10Meter4way	Slope_10Meter
Hospitals	StreamsNHDHighRes
LakesNHDHighRes	Utah
LandOwnership	UtahContours_250
LightRail_UTA	UtahMajorRiversPoly
LightRailStations_UTA	WesternStates
MergedParks	WesternStates_Line
Mileposts	41 - 69 Total

Tips and Tricks

Visualizing Terrain



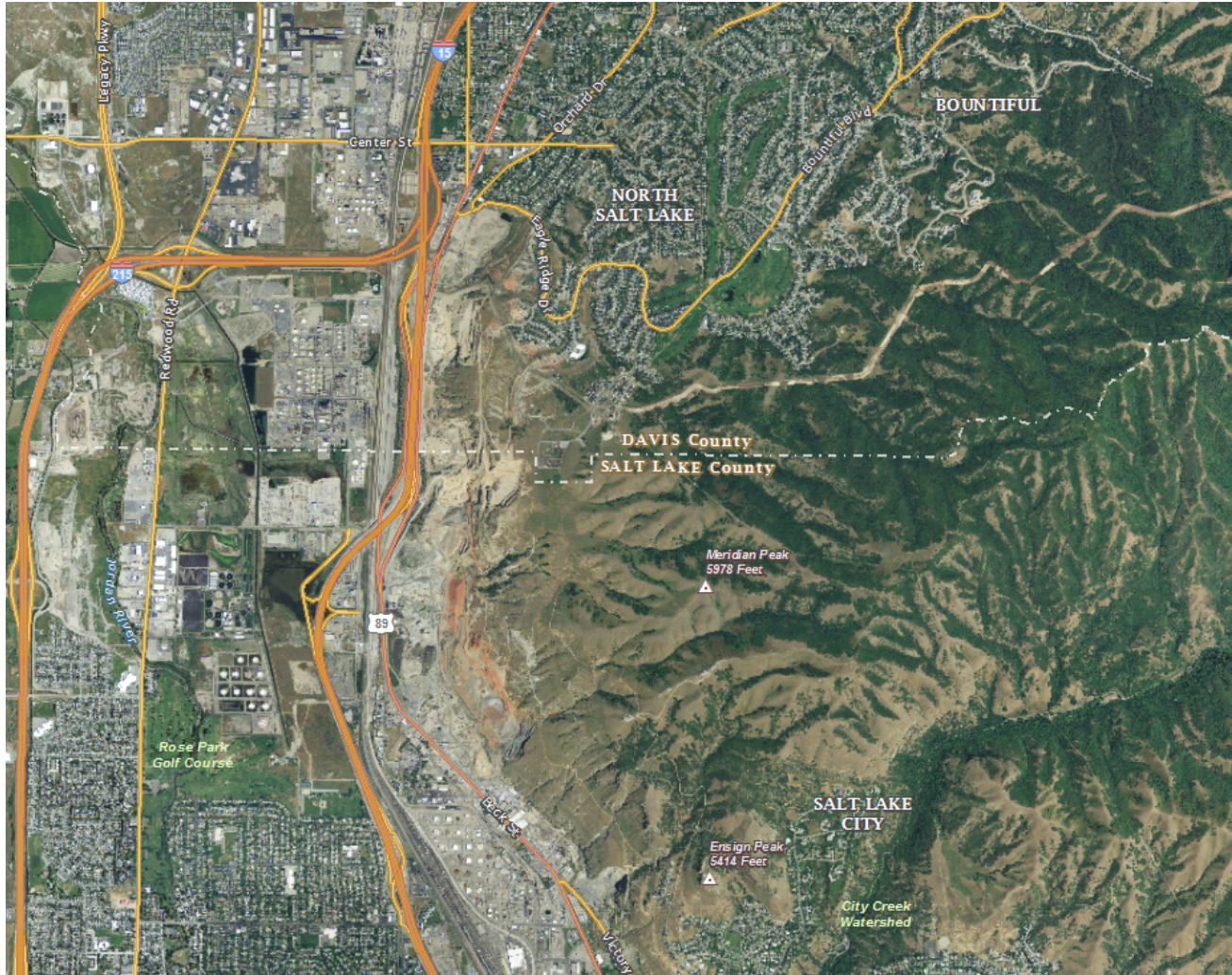
Tips and Tricks Working with Labels

The screenshot shows the 'Layer Properties' dialog box with the 'Labels' tab selected. The 'Label features in this layer' checkbox is checked, and the 'Method' is set to 'Define classes of features and label each class differently'. A dropdown menu for 'Class' is open, showing a list of land ownership categories: Forest, Wilderness, Grand-Staircase, Tribal, BLM WILDERNESS, NPS REC AREA, MILITARY, Primitive Area, and State Parks. The 'Label Field' is set to 'LABEL_FEDERAL'. Below the class list, there are options for 'Text Style' (ABC), 'Text Size' (8), and 'Symbol' (a green square). The 'Other Options' section includes 'Placement Properties...', 'Scale Range...', and 'Label Styles...'. An 'SQL Query' dialog box is open in the foreground, displaying the following query:

```
SELECT * FROM LandOwnership WHERE:  
("LABEL_FEDERAL" LIKE "%Forest%" and not "LABEL_FEDERAL"  
like "%Private Inholding%" and not "LABEL_FEDERAL" like  
"%Wilderness%") AND "Shape_Area" > 12150000
```

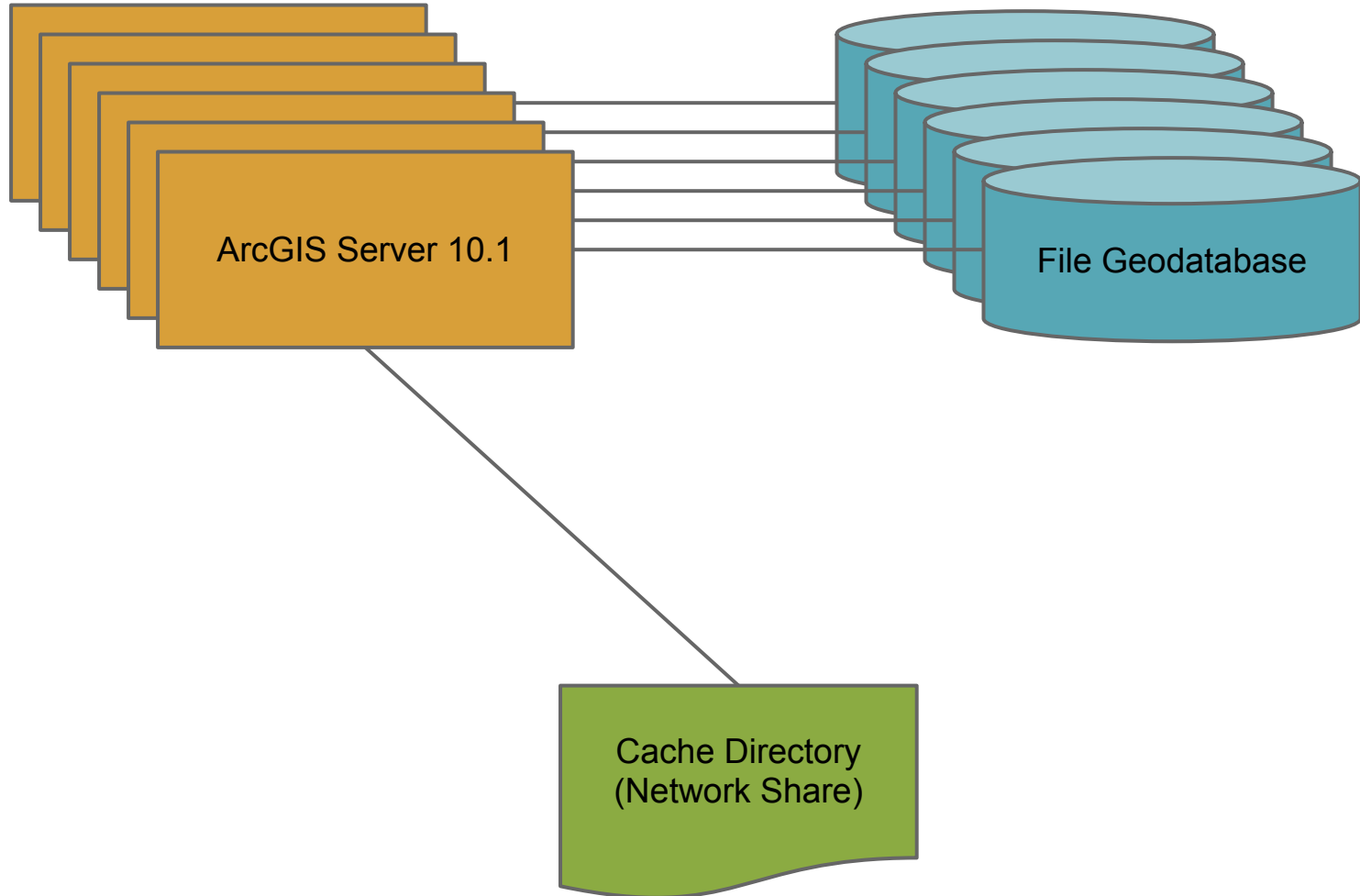


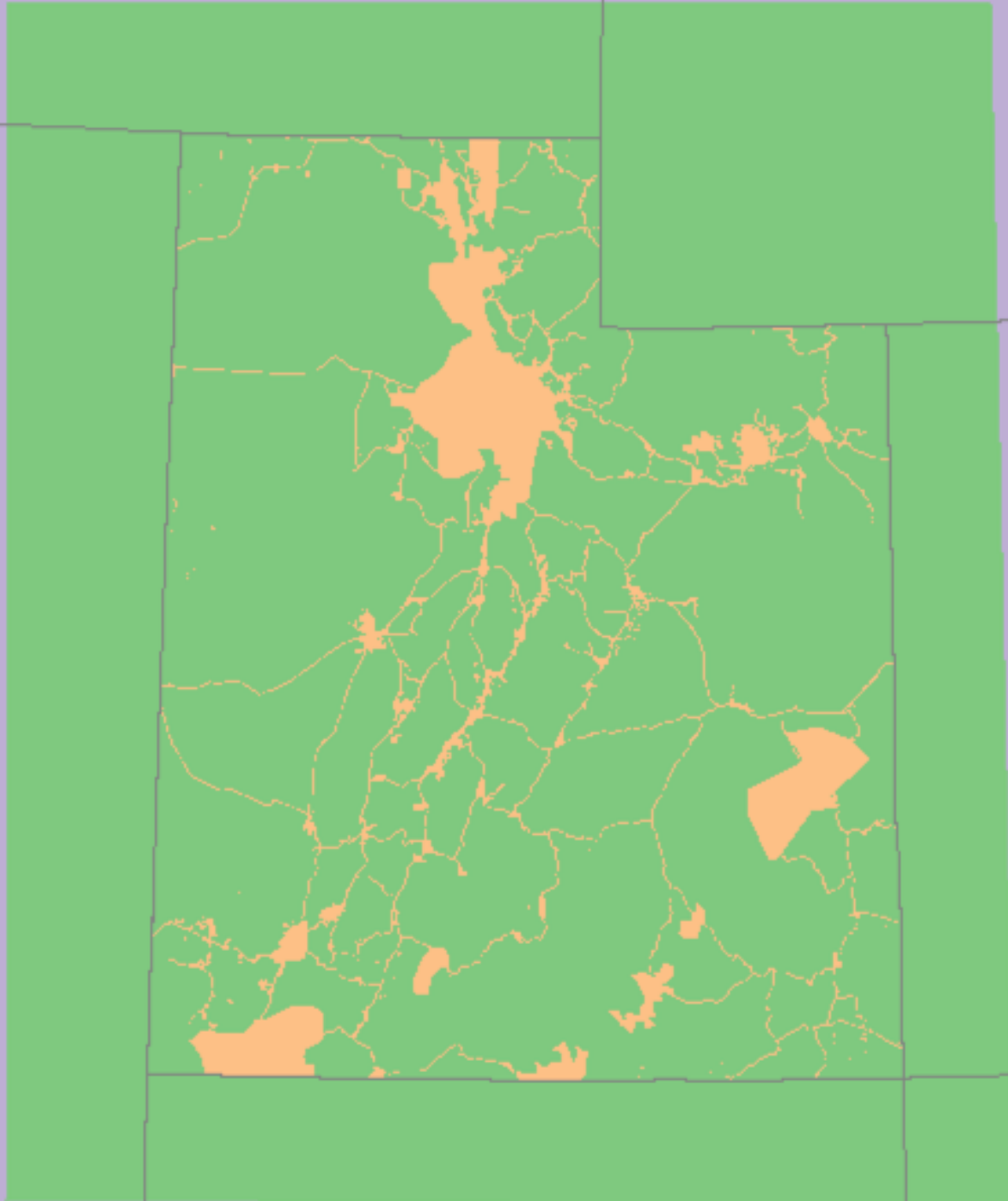
Tips and Tricks Don't Screw Up!



10.1 Upgrade Caching System

ArcGIS Server 10.1 Site - Default Cluster







Terrain

Files: **7,205**

Folders: **18**

Size on disk: **193 GB**



Hybrid

Files: **7,670**

Folders: **18**

Size on disk: **642 GB**



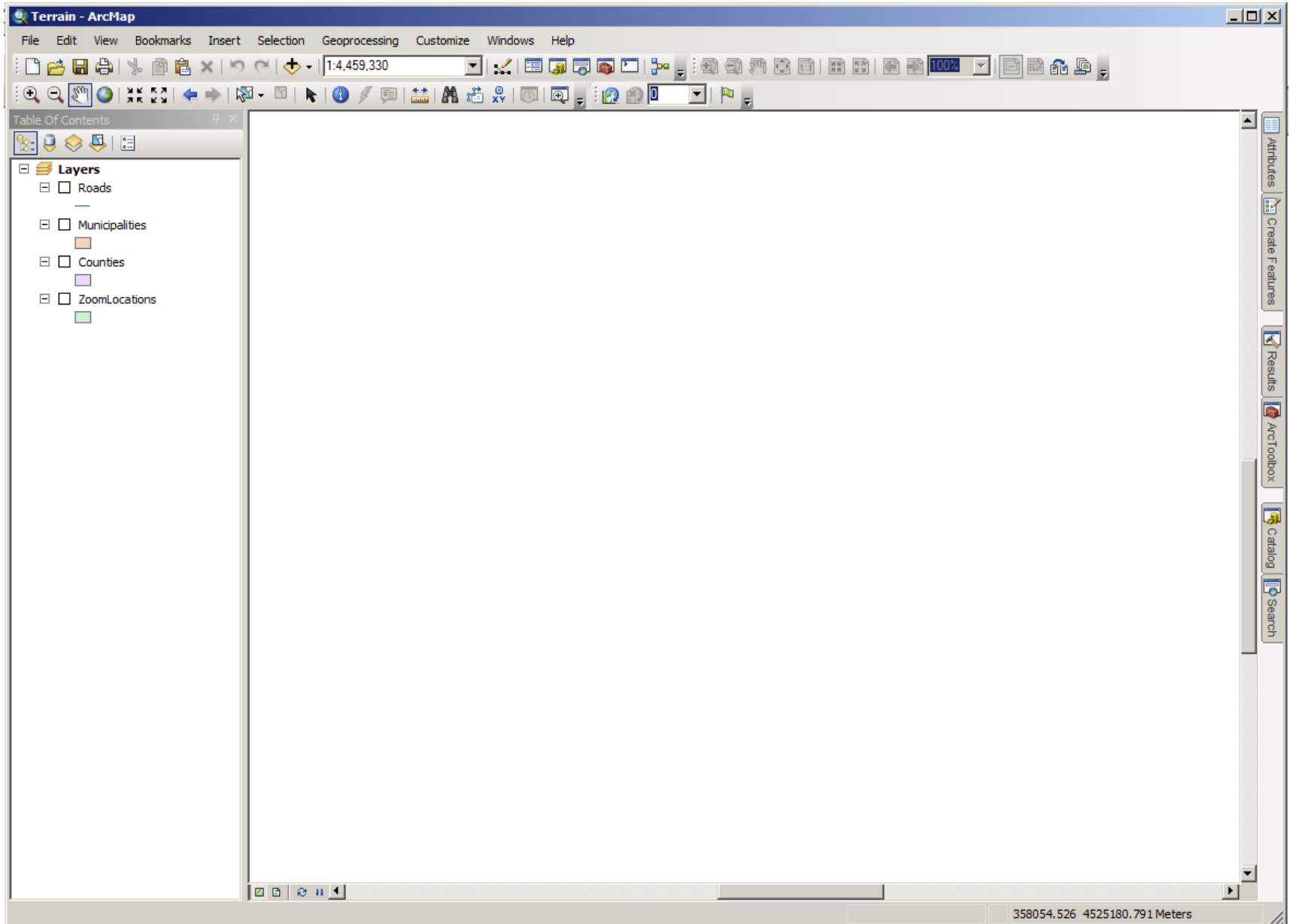
Lite

Files: **7,660**

Folders: **18**

Size on disk: **164 GB**

Blank MXD's For Production Map Services



URL Changes From 9.3.1 to 10.1

AGRC Cached Base Map Changes for 10.1 : URL's

9.3 URL	10.1 URL
UtahBaseImagery-Detailed UtahBaseMap-Imagery2009	BaseMaps/Imagery
UtahBaseMap-Hillshade	BaseMaps/Hillshade
UtahBaseMap-Hybrid	BaseMaps/Hybrid
UtahBaseMap-Lite	BaseMaps/Lite
UtahBaseMap-Terrain	BaseMaps/Terrain
UtahBaseMap-Topo	BaseMaps/Topo
UtahBaseMap-Vector	BaseMaps/Vector

OLD

<http://mapserv.utah.gov/ArcGIS/rest/services/UtahBaseMap-Vector/MapServer>

NEW

<http://mapserv.utah.gov/ArcGIS/rest/services/BaseMaps/Vector/MapServer>

9.3 Caching Experience

C:\ Command Prompt - updateCache.py

```
C:\PythonScripts\Caching>updateCache.py
Map service name eg: 'MyServiceFolder/MyService': Hybrid10.1
constructor
gp created.
Starting Cache Update 10-12
get_constraining_extent
returning: 144886.32 4018914.92 7403
TenThroughTwelve:done
email sent
constructor
gp created.
Starting Cache Update 13
get_constraining_extent
returning: 231003.02 4094887.7008 67
13: done
email sent
constructor
gp created.
Starting Cache Update 14
get_constraining_extent
returning: 231003.02 4094887.7008 67
14: done
email sent
Press enter to exit.
```

Name	Size	Type
svn		File F
base		File F
CacheValidation		File F
baseCacheTests.py	1 KB	Pytho
bug20400.py	2 KB	Pytho
bug20913.py	7 KB	Pytho
bug20927.lite.py	2 KB	Pytho
bug20927.pyc	2 KB	Comp
bug20927.terrain.py	2 KB	Pytho
bug20927.vector.py	2 KB	Pytho
bug20965.py	2 KB	Pytho
createCacheScheme.py	3 KB	Pytho
MergeCache.py	2 KB	Pytho
updateCache.py	27 KB	Pytho
ValidateCache.py	3 KB	Pytho

insanity

```
# updateCache = ZeroThroughTwo (mapServiceName)
# updateCache.Update ()

# print '0-2: done'

# updateCache = ThreeAndFour (mapServiceName)
# updateCache.Update ()

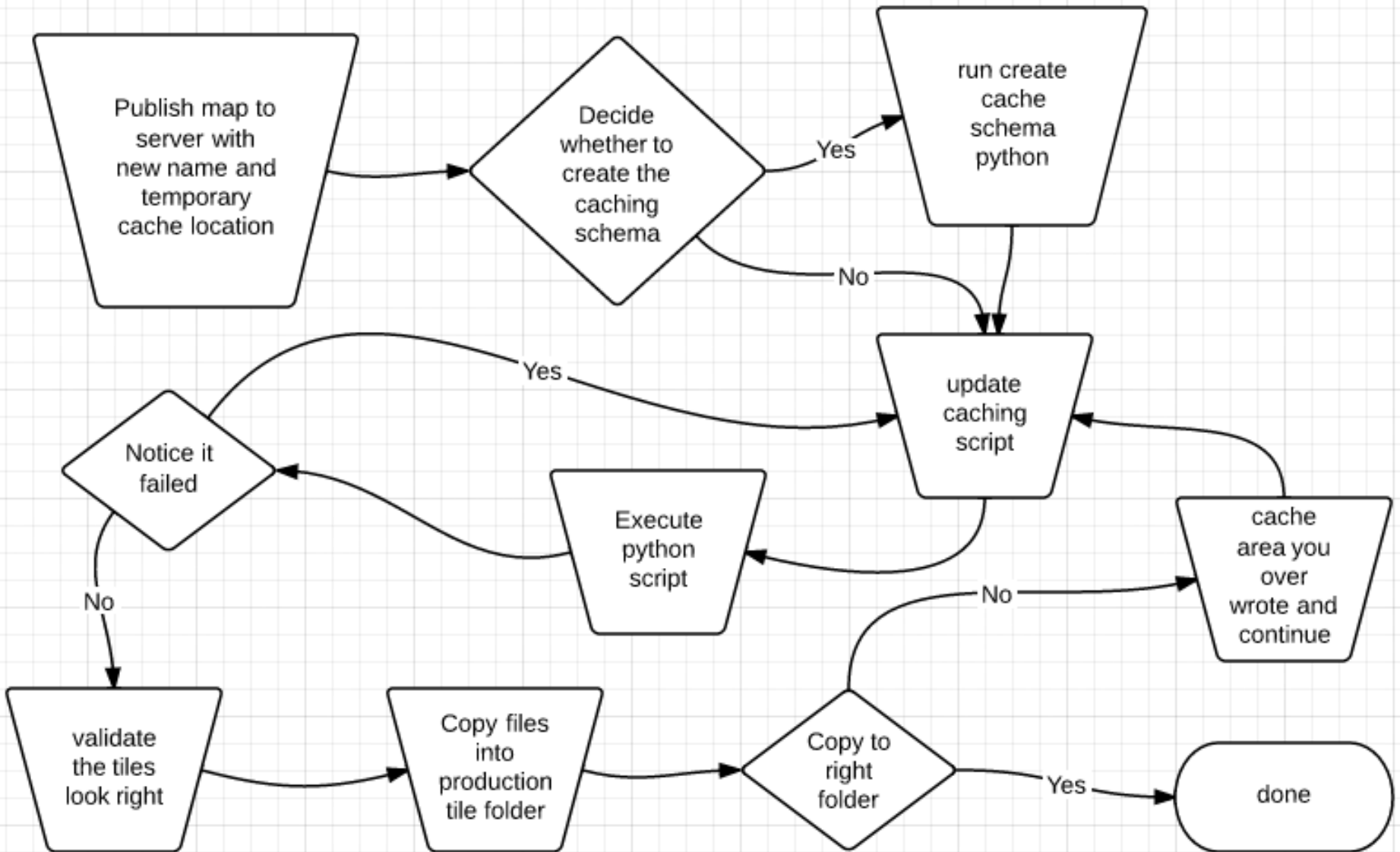
# print '3-4: done'
notify = agrc93.email.Emailer ('stdavis@utah.gov')

updateCache = TenThroughTwelve (mapServiceName)
updateCache.Update ()
print 'TenThroughTwelve:done'
notify.sendEmail ("10-12 Done", "Go check it out. Messages: " + updateCache.messa

updateCache = Thirteen (mapServiceName)
updateCache.Update ()
print '13: done'
notify.sendEmail ("13 Done", "Go check it out. Messages: " + updateCache.message

updateCache = Fourteen (mapServiceName)
updateCache.Update ()
print '14: done'
notify.sendEmail ("14 Done", "Go check it out. Messages: " + updateCache.message
```


job security

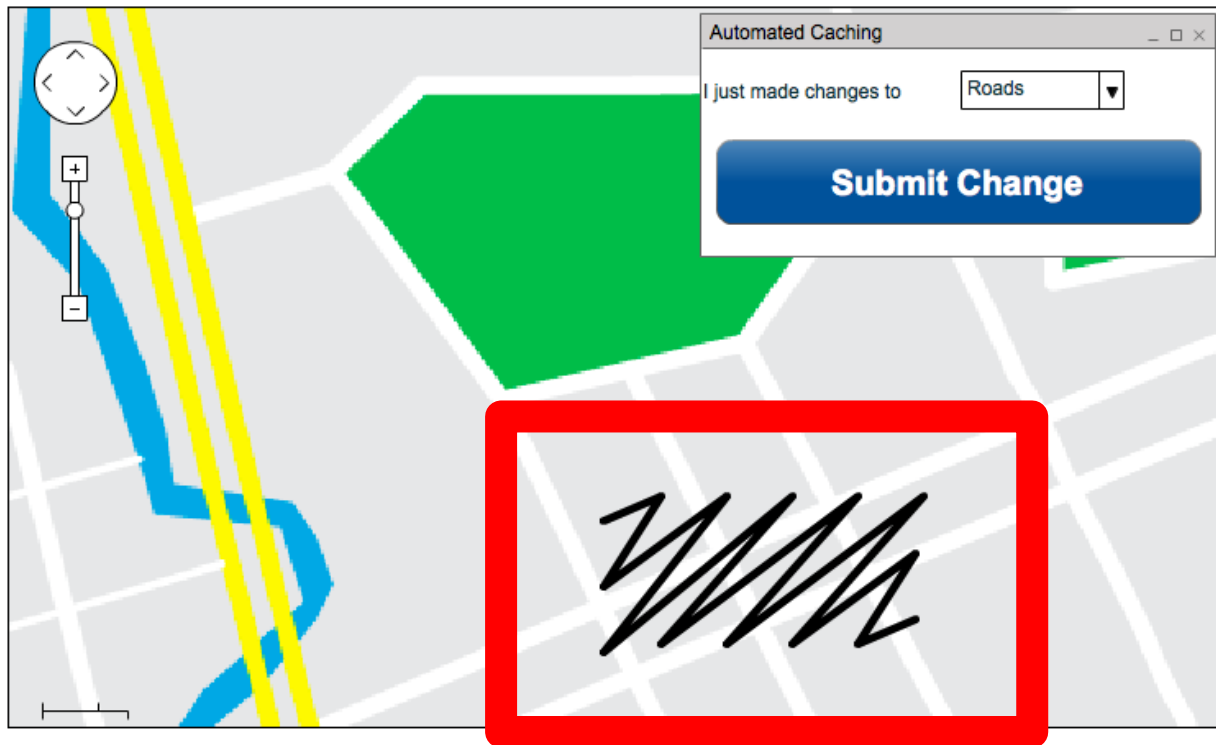




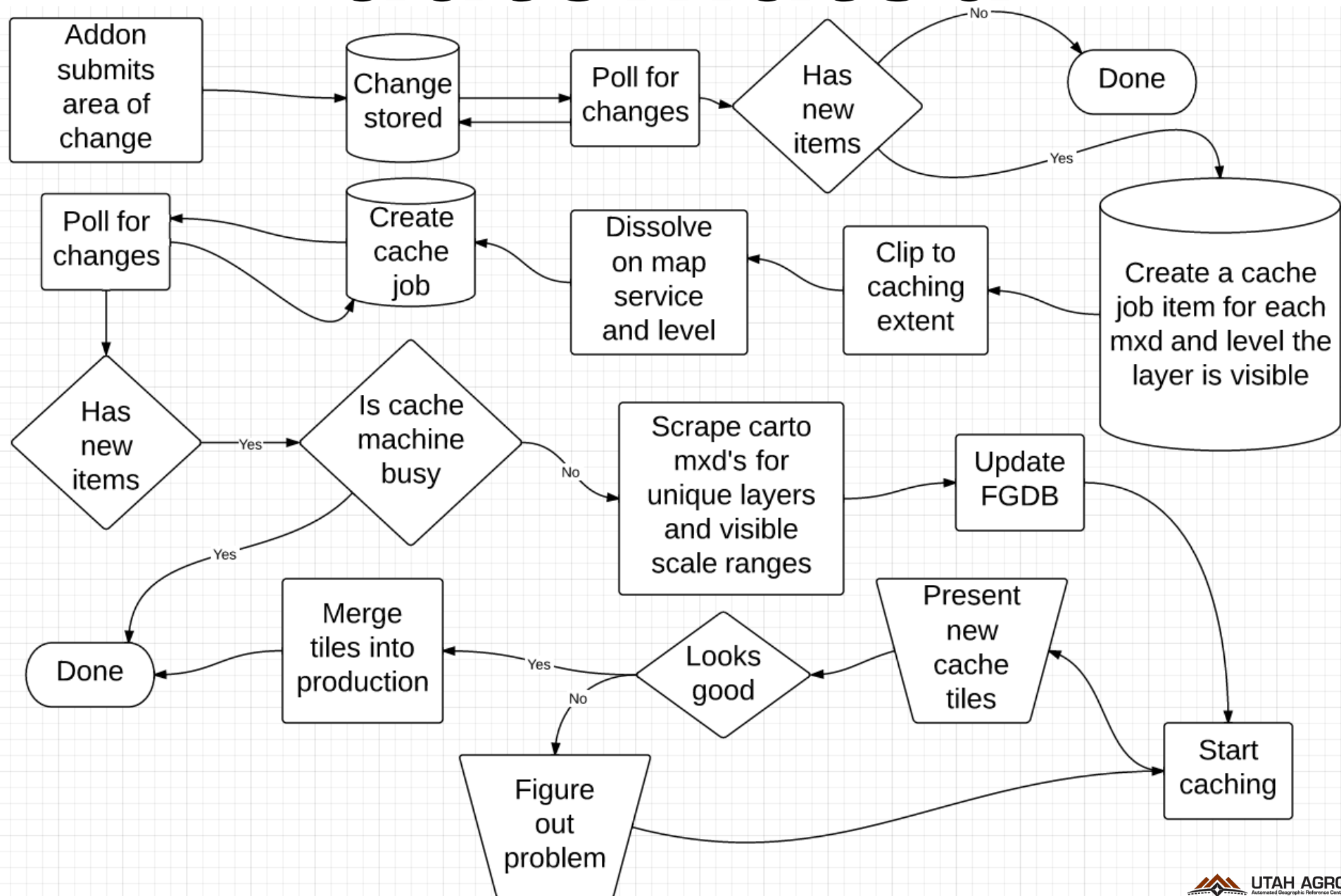
road to getting your 'PhD'

push here dummy

data currency



automated



get involved



<https://github.com/agrc/AutomatedCaching>



UTAH AGRC
Automated Geographic Reference Center

comments questions

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sgourley@utah.gov : @steveAGRC

stdavis@utah.gov : @scottAGRC

gis.utah.gov