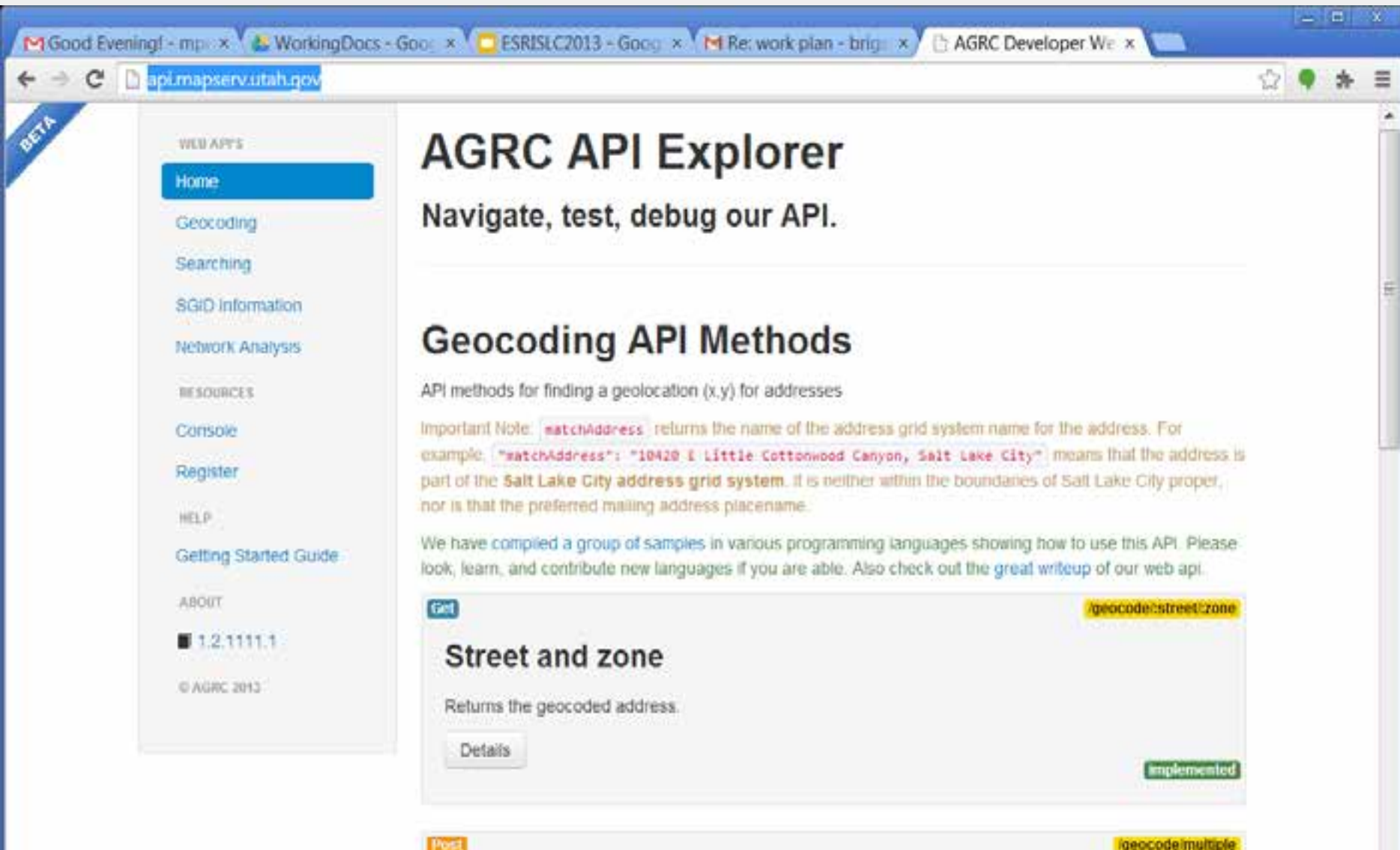


AGRC Web Services



Lets start at the beginning!

<http://api.mapserv.utah.gov/>



The screenshot shows a web browser window with the URL api.mapserv.utah.gov. The page title is "AGRC API Explorer" and the subtitle is "Navigate, test, debug our API." The main heading is "Geocoding API Methods" with the description "API methods for finding a geolocation (x,y) for addresses". An important note states: "Important Note: `matchAddress` returns the name of the address grid system name for the address. For example, `{\"matchAddress\": \"10420 E Little Cottonwood Canyon, Salt Lake City\"}` means that the address is part of the Salt Lake City address grid system. It is neither within the boundaries of Salt Lake City proper, nor is that the preferred mailing address placename." Below this, it says: "We have compiled a group of samples in various programming languages showing how to use this API. Please look, learn, and contribute new languages if you are able. Also check out the [great writeup](#) of our web api." The page features a sidebar with navigation links: "WEB APPS" (Home, Geocoding, Searching, SGIID Information, Network Analysis), "RESOURCES" (Console, Register), and "HELP" (Getting Started Guide, ABOUT). The version is "1.2.1111.1" and the copyright is "© AGRC 2013". The main content area shows a "Get" method for "Street and zone" with the endpoint `/geocode:street:zone`. The description is "Returns the geocoded address." and there is a "Details" button. A green "Implemented" badge is visible in the bottom right corner of the method card.

Getting Started Guide

The What?

The **AGRC Web API** is an **http** enabled service for accessing (via the internet) the geospatial data that **AGRC** stores in the [State Geographic Information Database \(SGID\)](#). These services are a great way to add geospatial functionality to your web pages and applications.

The Who?

This guide and API are designed for people familiar with programming concepts to get started quickly and start making cool apps.

The Why?

The demand for **geospatial** and **location** based information has increased dramatically as many disciplines realize the power of spatial data. A customer's address stored in a database has only so many uses. With this API, the door opens to many spatial opportunities from **visually** seeing customer locations on a map to being able to spatially analyze their relationship or patterns in conjunction with other events such as disease occurrence, natural disaster affected areas, and other location based occurrences.

If there is a need to geocode addresses or find out useful information from a physical entity stored in the [SGID](#) using your favorite programming language, then this API is for you.

The How?

Make a **GET** or **POST** http request to our API and it will reply with the answer. The [API Explorer](#) lists all the services we currently provide. The explorer also shows you the url pattern for the service, all the required and optional parameters, what http verb to use, as well as a place to make a **sample** request. The exact uri for the request will be displayed and the response will also be displayed. The response will be serialized as **JSON**. In order to make a successful request, you will have to generate a unique API Key.

Account Creation

We require you to [create an account](#). Your account gives you access to [create and manage](#) your API keys. It also gives you insight to how often your keys are being used. You can judge the popularity of the functionality based on these numbers. Be sure to [confirm your email address](#) or API requests will not complete.

Log in to manage your account

Login

Email Address:
required

Password:
required

Register

Email Address:
required

Password:
required

Register to create an account

BETA

WEB APPS

- Home
- Geocoding
- Searching
- SGID Information
- Network Analysis

RESOURCES

- Console
- Register

HELP

- Getting Started Guide

ABOUT

1.2.1111.1

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AGRC API Explorer

Navigate, test, debug our API.

Geocoding API Methods

API methods for finding a geolocation (x,y) for addresses

Important Note: `matchAddress` returns the name of the address grid system name for the address. For example, `"matchAddress": "10420 E Little Cottonwood Canyon, Salt Lake City"` means that the address is part of the **Salt Lake City address grid system** it is neither within the boundaries of Salt Lake City proper, nor is that the preferred mailing address placename.

We have compiled a group of samples in various programming languages showing how to use this API. Please look, learn, and contribute new languages if you are able. Also check out the [great writeup](#) of our web api.

Get /geocode/street/zone

Street and zone

Returns the geocoded address.

[Details](#)

implemented

Post /geocode/multiple

Multiple addresses

Returns a list of geocoded addresses. Addresses that do not meet the acceptScore are omitted from the returned list.

[Details](#)

implemented

Good Evening! - m... WorkingDoes - Goo... ESRI5LC2013 - Goo... Inbox - brigsz@gmail... AGRC Developer We...

api.mapserv.utah.gov

BETA

WEB APP'S

- Home
- Geocoding
- Searching
- SGID Information
- Network Analysis

RESOURCES

- Console
- Register

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- Getting Started Guide

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- 1.2.1111.1
- © AGRC 2013

street string required

A Utah street address, eg: **326 east south temple st.** Intersections are separated by **and**.

zone string required

A Utah municipality name or 5 digit zip code.

spatialReference string optional

The spatial reference of the input geographic coordinate pair. Choose any of the wkid's from the [Geographic Coordinate System wkid reference](#) or [Projected Coordinate System wkid reference](#). **3857** is the default.

Popular WKID's

System	wkid
Latitude/Longitude (WGS84)	4326

format string optional

The format of the resulting address. **esri json** will easily parse into an **esri Graphic** for display on a map and **geojson** will easily parse into a feature for use in many open source projects. If this value is omitted, **normal json** will be returned.

callback string optional

The callback function to call for cross domain javascript calls (**jsonp**).

acceptScore number optional

Sets the score for an acceptable address match. The scale is over 0-100 with the default score being **70**.

suggest number optional

The number of suggests to return for a given geocoded address. Will return **0** suggestions if the match score for the input address is above the accept score.

BETA

WEB APPS

Home

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address points locators and road centerline locators. This will offer the best results. `addressPoints` will only geocode on address points and `roadCenterLines` will only geocode on road centerlines. Default is `All`

Try it

Code

Post

`geocode/multiple`

Multiple addresses

Returns a list of geocoded addresses. Addresses that do not meet the `acceptScore` are omitted from the returned list.

Details

implemented

Get

`geocode/reverse:xy`

Reverse geocoding

Returns the reverse geocoded address.

Details

implemented

Get

`geocode/milepost:route:milepost`

Route and Milepost

Returns a geocoded milepost on a route.

Details

Changelog

1.0.606.1

6/6/2013

- disabled logging to try to pinpoint performance issues.
- Can now use SSL.

1.0.0429.1

4/29/2013

- Password updating does not 404 when bad input is received.

1.0.416.1

4/18/2013

- automated changelog creation

1.0.0403.1

4/3/2013

- updated the rules for authorizing development key requests.

1.0.321.1

3/22/2013

- added startup guide.
- updated ip validation rules

How to geocode an address in various programming languages

8 commits

1 branch

0 releases

2 contributors

branches master GeocodingSample

Merge pull request #2 from licyeus/master

steveoh authored 4 months ago

latest commit 34e20417be

CR	How to geocode samples	5 months ago
JavaScript	How to geocode samples	5 months ago
Python	How to geocode samples	5 months ago
Ruby	Add check for HTTP status codes	4 months ago
.gitattributes	How to geocode samples	5 months ago
.gitignore	How to geocode samples	5 months ago
README.md	Fix mixup of x/y	4 months ago

README.md

GeocodingSample

Code

Issues 0

Pull Requests 0

Pulse

Graphs

Network

HTTPS clone URL

https://github.com

You can clone with HTTPS, or Subversion

Clone in Desktop

Download ZIP

GitHub

This repository Search or type a command

Explore Features Enterprise Blog

Sign up Sign in

agrc / GeocodingSample

Star Fork

branch master GeocodingSample / JavaScript / dojo1.9.0 / Geocoding.js

steveoh 5 months ago How to geocode samples

1 contributor

file 63 lines (54 src) 1.657 KB

Open Edit Raw Blame History Delete

```

1 define(['dojo/request', 'dojo/_base/lang', 'dojo/Deferred'],
2
3 function(request, lang, Deferred) {
4   var urlTemplate = "http://api.mapserv.utah.gov/api/v1/geocode/{street}/{zone}";
5
6   return locate = function(street, zone, apiKey, params) {
7     var def = new Deferred();
8
9     var url = lang.replace(urlTemplate, {
10       street: street,
11       zone: zone
12     });
13
14     params = (params ? {} : params);
15
16     params.apiKey = apiKey;
17
18     request.get(url, {
19       headers: {
20         "Content-type": "application/json"
21       },
22       query: params,
23       handleAs: "json"
24     }).then(function(response) {
25       if (response.status != 200) {

```



Get Involved



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

Widgets!!!!

AGRC Widgets Version: 1.0

By Object

- agrc
 - widgets
 - layer
 - OpacitySlider
 - locate
 - FindAddress
 - FindGeneric
 - FindGNIS
 - LegislatorDetails
 - LegislatorLookup
 - MagicZoom
 - query
 - TRSsearch
 - map
 - BaseMap
 - BaseMapSelector
 - EmbeddedMap
 - GoogleToc
 - ThemeInfo
 - Toc
 - viewer

Welcome

Welcome to the AGRC Dojo Widgets API Console

The request was for: (version: 1.0)

Using Our Widgets

You can use our widgets just like any other Dojo widget. Just be sure to set your `modulePaths` property on `djConfig` so that Dojo knows where to look. Since most of our widgets are built on ESRI's ArcGIS API for JavaScript, you'll have to load their api as well. See below for an example:

```

<!-- JAVASCRIPT -->
<script type="text/javascript">
  djConfig={
    isDebug: true,
    debugAtAllCosts: true,

    // this is where you tell dojo where to find the agrc widgets
    modulePaths: [
      'agrc': 'http://mapserv.utah.gov/cdn/dojo/agrc/1.0RC1/agrc'
    ]
  };
</script>

<!-- esri javascript api includes dojo -->
<script type="text/javascript" src="http://serverapi.arcgisonline.com/jsapi/arcgis/?v=2.2"></script>

<script type="text/javascript">
  // you require agrc widgets just like any other dojo widget
  dojo.require('agrc.widgets.map.BaseMap');
</script>

```

Browser Compatibility

Our widgets are built on ESRI's ArcGIS API for JavaScript. We support the same browsers that they do. You can check them out [here](#). If you have problems with IE 9 you can force it into compatibility mode with this meta tag:

Atlas Utah 2.1.0



UTAH AGRC
Automated Geographic Reference Center

Data and services provided by Utah AGRC

Print

Find Address

Address

Zip or City

Find

Find GNIS Place Name

place name

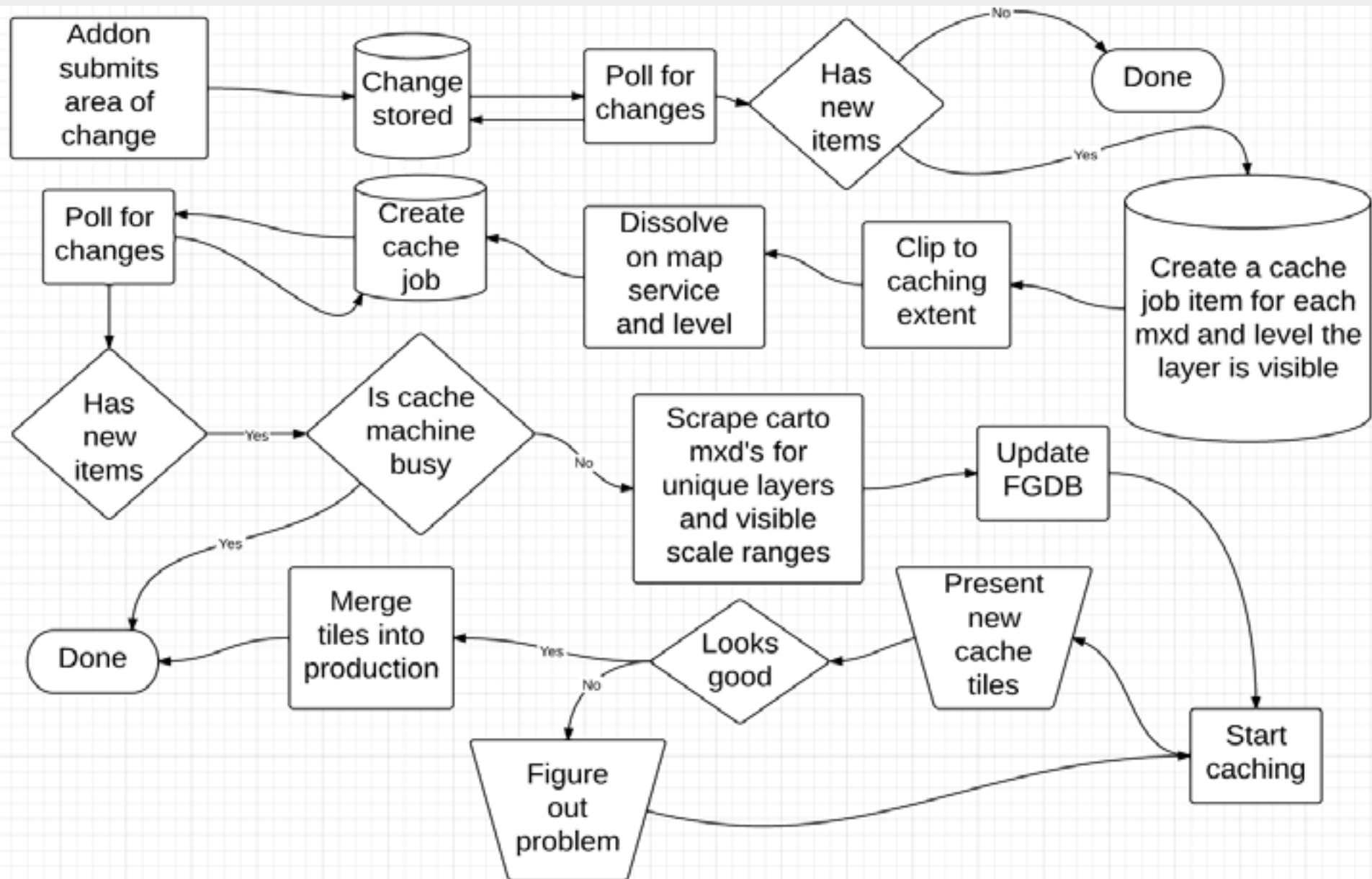


Find City

city name



BASE MAP CACHE?



AGRC | Online Basemap

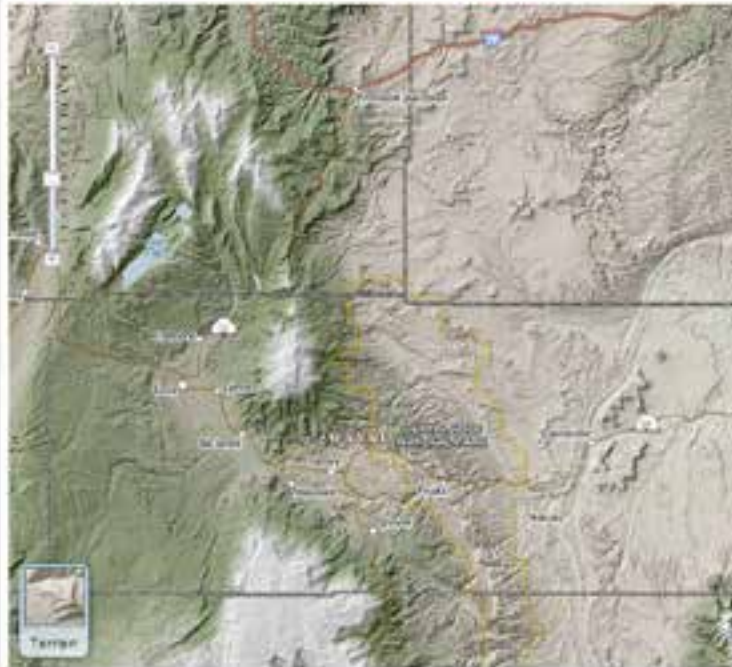
mapserv.utah.gov/arcgis/rest/services/UtahBaseMap-Terrain/MapServer

Site Routing Cap Plans CBS FP MSU News Sk State Weather Food

5

Service Name: Terrain
 Service Url: <http://mapserv.utah.gov/ArcGIS/rest/services/UtahBaseMap-Terrain/MapServer>
 Mouse Location: UTM NAD83 coords: 449895, 4296815

Here are instructions on how to use this map: [with the .net api](#) or [with arcmap](#).
[View all caches](#)
[simultaneous?](#)



AGRC | Online Basemap

mapserv.utah.gov/arcgis/rest/services/UtahBaseMap-Terrain/MapServer

Site Routing Cap Plans CBS FP MSU News Sk State Weather Food

Welcome to the AGRC online basemap cache viewer. Here we display all of our online basemaps. These maps are free to use and the service url is below.

- <http://mapserv.utah.gov/ArcGIS/rest/services/Terrain/MapServer>
- <http://mapserv.utah.gov/ArcGIS/rest/services/USGS/MapServer>
- <http://mapserv.utah.gov/ArcGIS/rest/services/USGS/MapServer>
- <http://mapserv.utah.gov/ArcGIS/rest/services/USGS/MapServer>
- <http://mapserv.utah.gov/ArcGIS/rest/services/USGS/MapServer>
- <http://mapserv.utah.gov/ArcGIS/rest/services/USGS/MapServer>
- <http://mapserv.utah.gov/ArcGIS/rest/services/USGS/MapServer>

6
level

mapserv.utah.gov/cacheviewer



Welcome to the AGRC online basemap cache viewer. Here we display all of our online basemaps. These maps are free to use and the service uris are below.

- <http://mapserv.utah.gov/ArcGIS/rest/services/Vector/MapServer>
- <http://mapserv.utah.gov/ArcGIS/rest/services/Hybrid/MapServer>
- <http://mapserv.utah.gov/ArcGIS/rest/services/Lite/MapServer>
- <http://mapserv.utah.gov/ArcGIS/rest/services/Terrain/MapServer>
- <http://mapserv.utah.gov/ArcGIS/rest/services/Imagery2009/MapServer>
- <http://mapserv.utah.gov/ArcGIS/rest/services/>



6 level



ArcGIS Server User Connection Properties



General

Server URL:

ArcGIS Server: <http://myserver:6080/arcgis/services>

Spatial Data Server: <http://myserver:8080/arcgis/rest/services>

Authentication (Optional)

User Name:

Password:

Save Username/Password

[About ArcGIS Server connections](#)

[About Spatial Data Server connections](#)

OK

Cancel

Apply

<http://mapserv.utah.gov/arcgis/rest/services>

Catalog Tree

- Add WMS Server
- Add WMTS Server
- arcgis on maps.dnr.utah.gov (user)
- arcgis on mapserv.utah.gov (user)
- **arcgis on mapserv.utah.gov (user) (2)**
 - AerialPhotography_BlackWhite
 - AerialPhotography_Color
 - ▣ HRO2006_Color1Foot
 - ▣ HRO2009_Color1Foot
 - ▣ HRO2009_WestJordan_Color6Inch
 - ▣ HRO2012_UintahBasin_Color1Foot
 - ▣ HRO2012_Color6Inch_4Band
 - ▣ NAIP2004_Color1Meter
 - ▣ NAIP2006_Color1Meter
 - ▣ NAIP2009_Color1Meter_4Band
 - ▣ NAIP2011_Color1Meter_4Band
 - ▣ UAO2003_Color1Foot
 - BaseMaps
 - Broadband
 - CO2
 - Elevation
 - Geolocators
 - IBIS

Contents Preview Description

Name

- AerialPhotography_BlackWhite
- AerialPhotography_Color
- BaseMaps
- Broadband
- CO2
- Elevation
- Geolocators
- IBIS
- LtGovVotingDistricts
- Print
- ScannedMaps
- SGID
- Soe
- SurfaceWaterQuality
- Utilities
- ACTSStatisticsViewer
- DNRLands

Framework Data Layers

- The State Geographic Information Database (SGID) moving from a centralized repository to a distributed system.
- Data coming from an authoritative source (the data steward)
- gis.utah.gov will be an index of this data
- AGRC hopes to offer most framework layers as services of sorts.



Utah SGID Statewide Roads Layer Updates 10/2/2013

Oct 2, 2013

Updates were made recently to the SGID10.Transportation.Roads feature class that resides on the Utah SGID ArcSDE database server.

The updated Roads data is also available as shapefiles and file geodatabase files for download on the SGID FTP site.

Geocoding services and ArcGIS Server Applications & Web Services are now using the updated SGID10.Transportation.Roads feature class.

The following highlights what has been updated:

County Updates:

- **Davis:** Received centerline update 7/31/2013; added new roads, road names, and address ranges; geocoding improvements
- **Iron:** Received centerline update 9/24/2013; added road names and address ranges; geocoding improvements
- **Tooele:** Received centerline update 8/28/2013; added new roads, road names, and address ranges; geocoding improvements
- **Utah:** Received centerline update 7/29/2013; added new roads (August's update), road names, and address ranges; geocoding improvements

Blue Stakes of Utah Feedback:

- **Cache:** geocoding improvements

What We're Up To

loading tweets...

Navigate to:

- › [Data](#)
- › [Locations Services](#)
- › [SGID Blog](#)
- › [Developer](#)
- › [Featured](#)
- › [GPS-surveyor](#)
- › [Home](#)
- › [Mapping Spotlight](#)
- › [Uncategorized](#)

Good Data is the key

- Quality, Accurate data is the key to having a successful web service experience.
- We will be working with the State agencies of Utah to create the needed map and feature services to satisfy the business needs of the user community.
- There has been two constants at AGRC. Technology is always changing and Good Data can always be delivered in the technology of the day. Focus on the Data!

Using the Data

- elections.utah.gov
- The VISTA application
- Watershed Restoration Initiative
- Wildlife Vehicle Collision Application
- more.....

Commercial Data Sources

- Imagery
- Others



UTAH AGRC
Automated Geographic Reference Center

Comments? Questions?

mpeters@utah.gov : @mattAGRC
sgourley@utah.gov : @steveAGRC
stdavis@utah.gov : @scottAGRC

gis.utah.gov