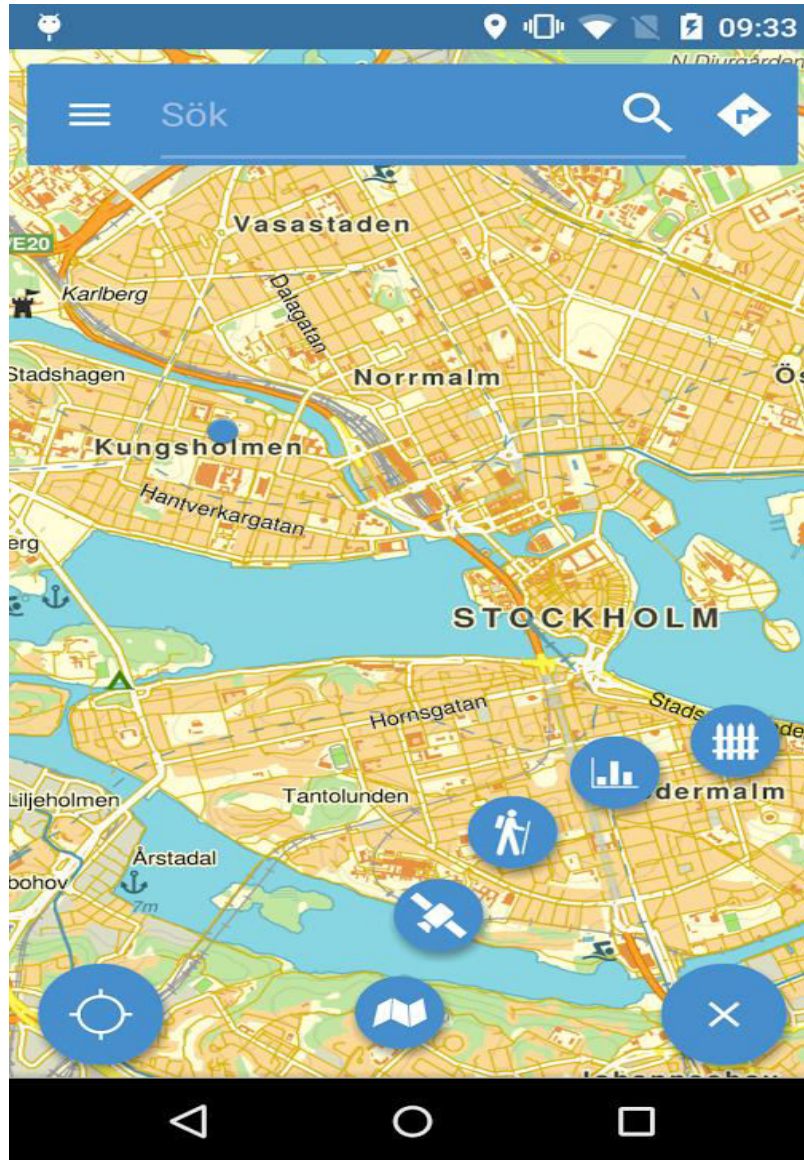
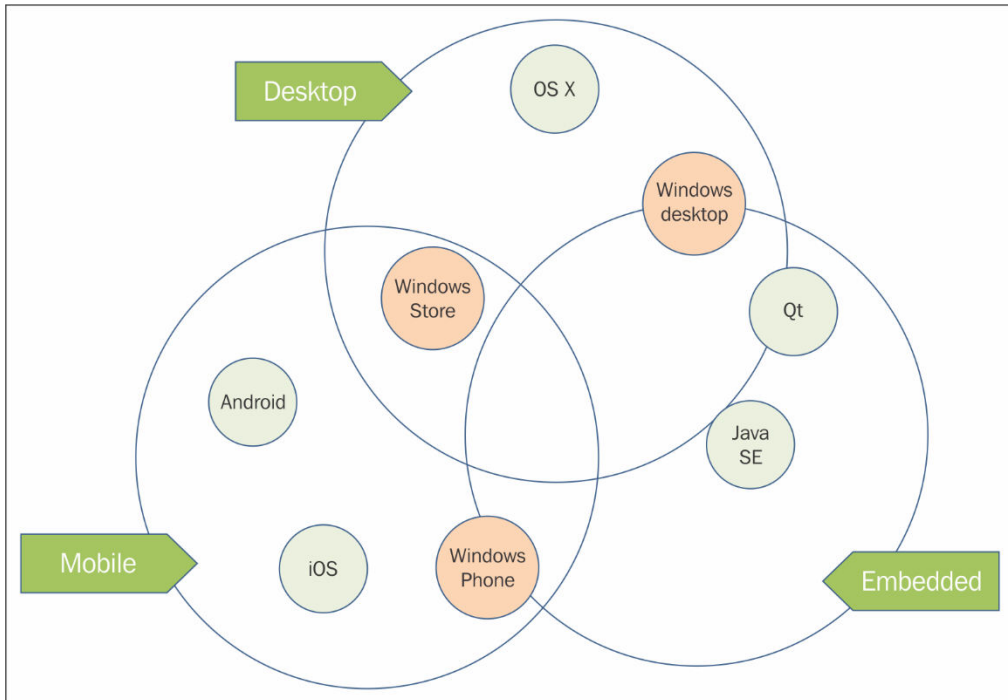
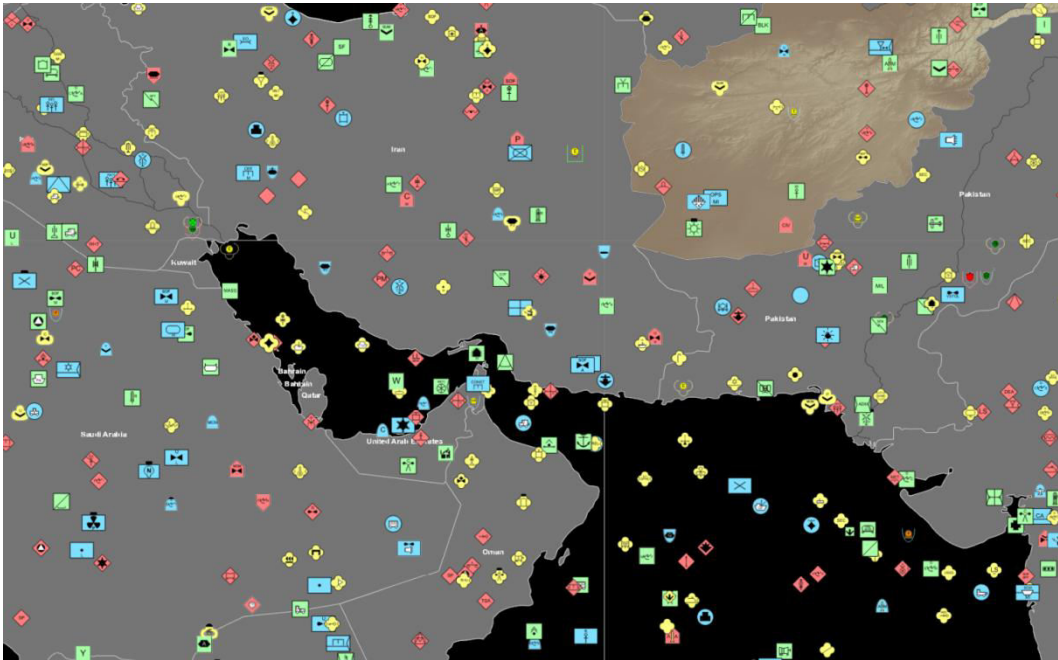


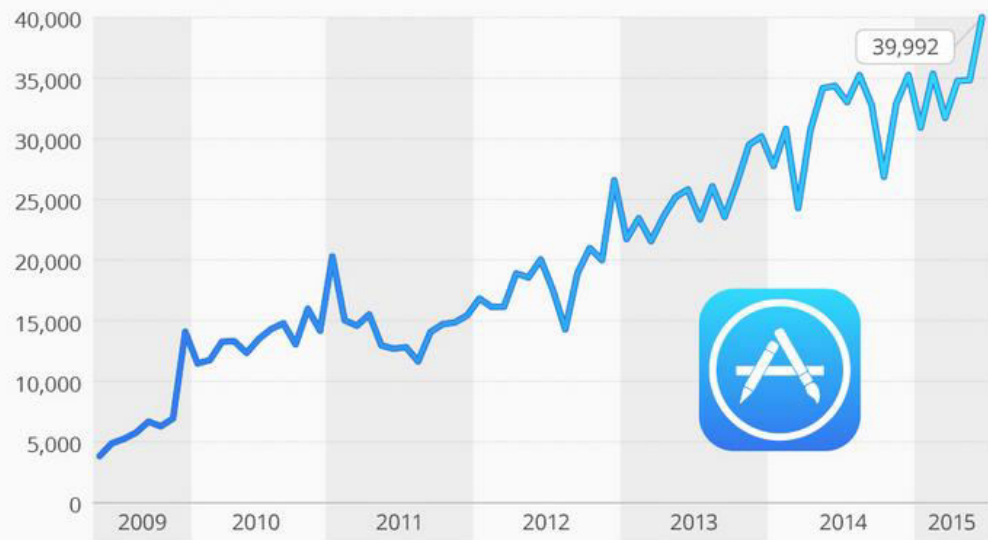
# Chapter 1: Introduction to ArcGIS Runtime





## Apple's App Store Is Growing by 1,000+ Apps a Day

Number of new apps submitted to Apple's App Store per month

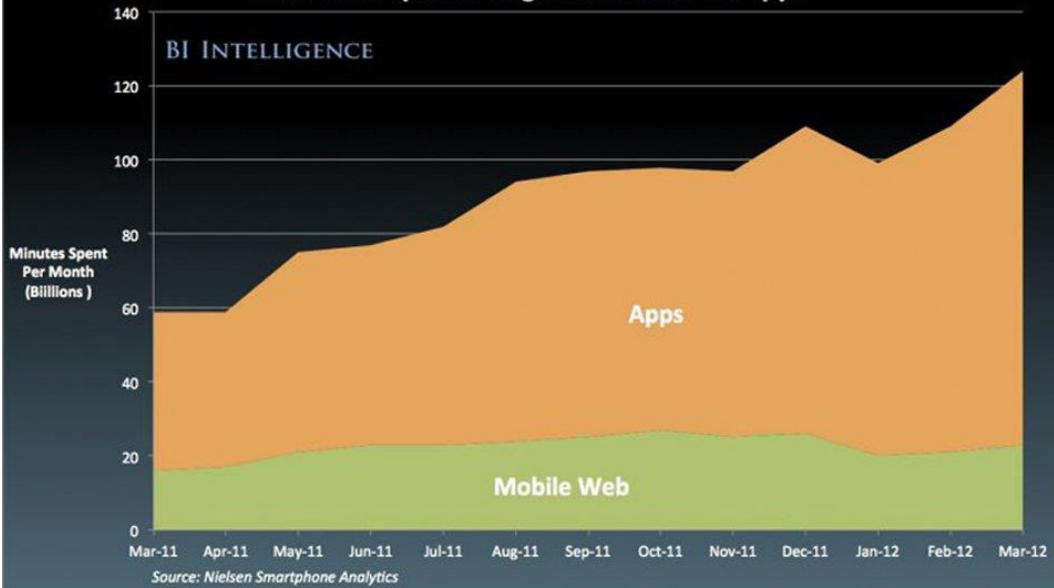


@StatistaCharts Source: pocketgamer.biz

statista



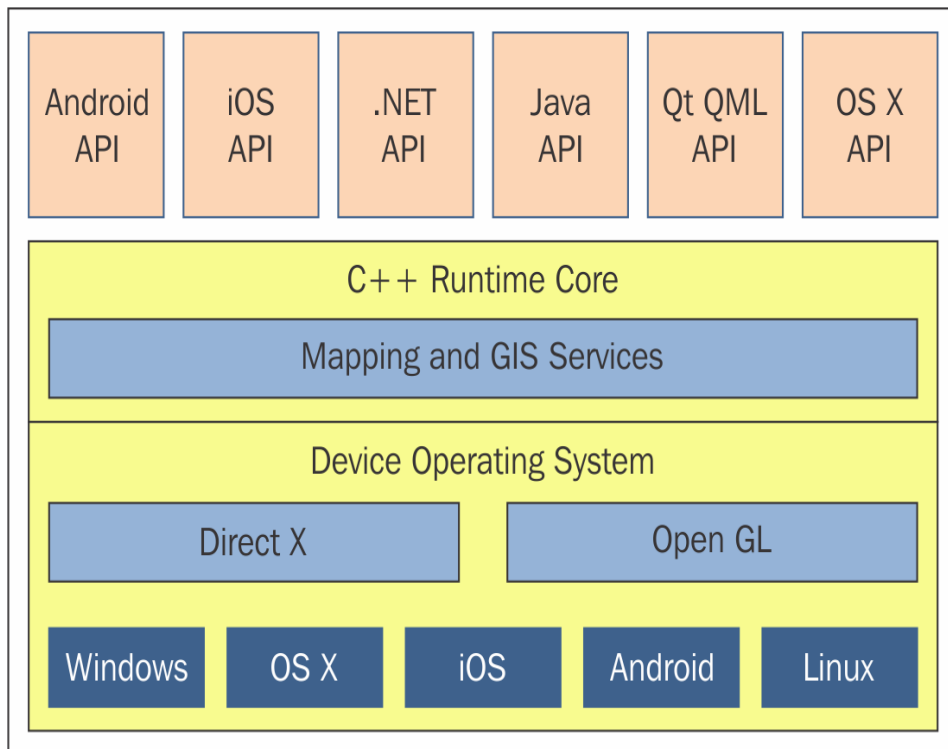
### Total Time Spent Using Mobile Web vs. Apps

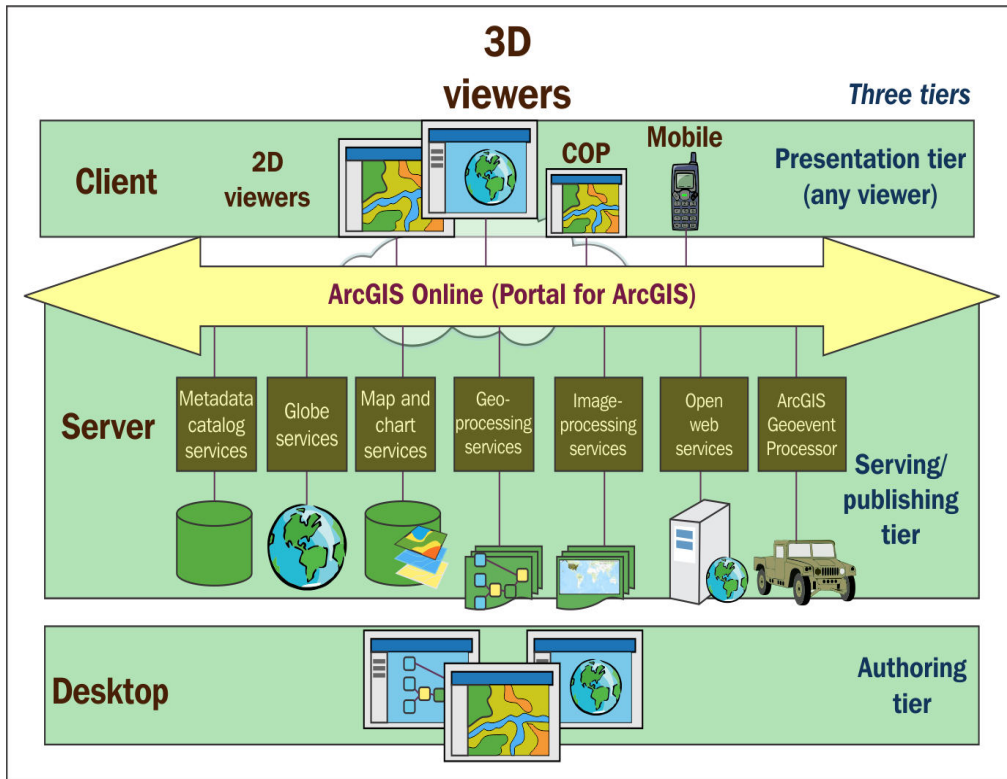














Sign In



**Username**

**Password**

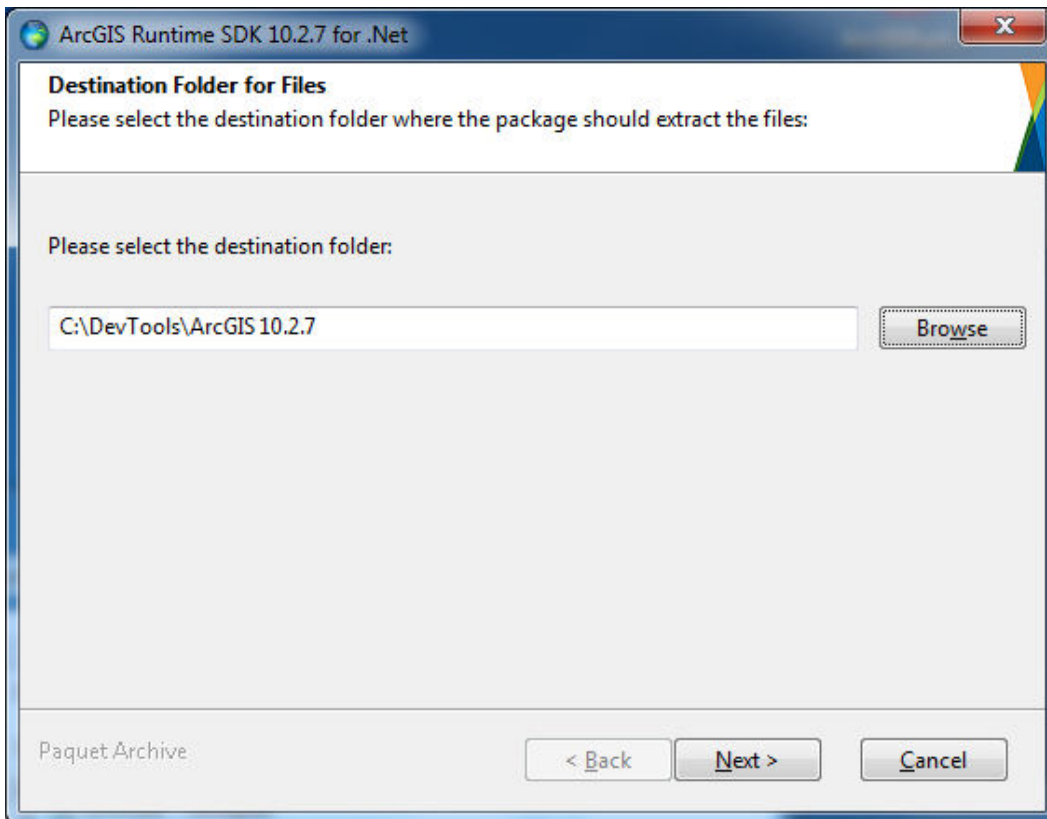
Keep me signed in

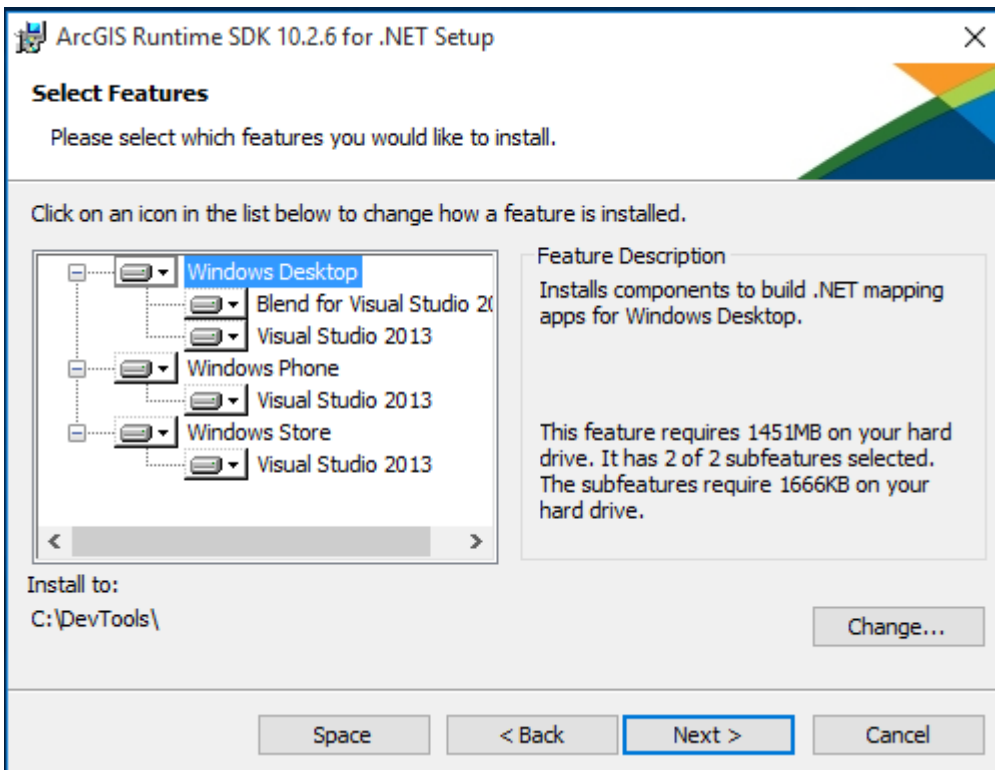
**SIGN IN**

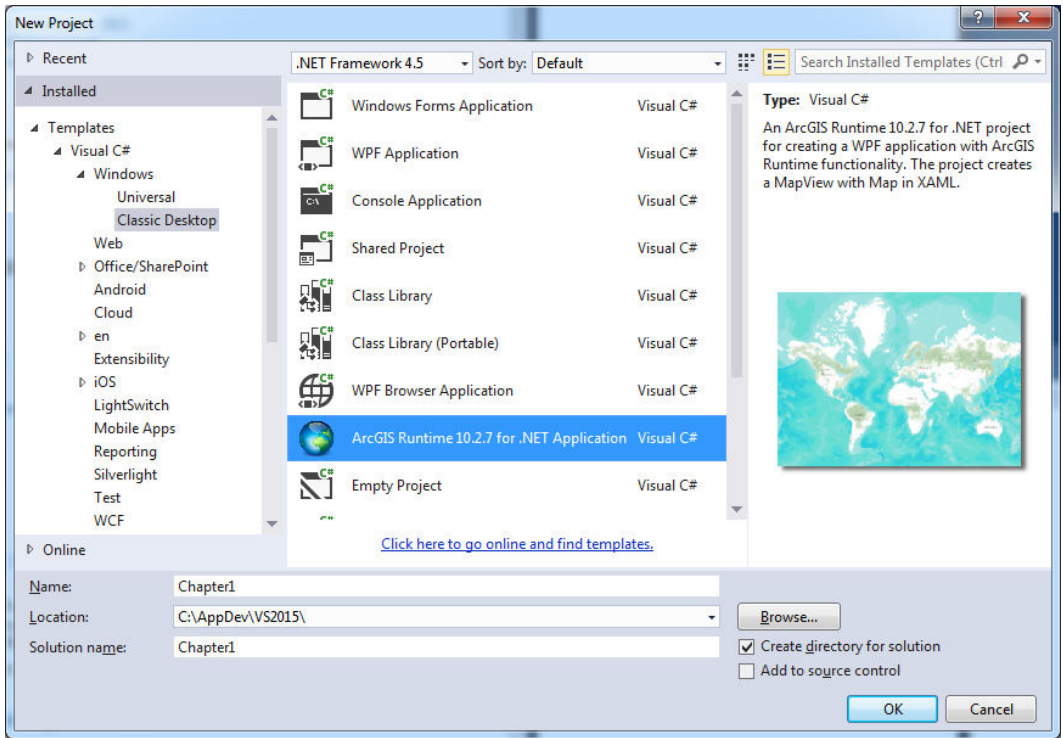
[Forgot password?](#) [Forgot username?](#)

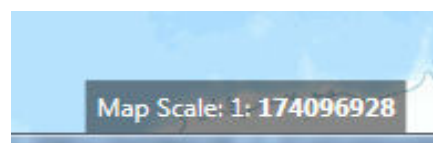
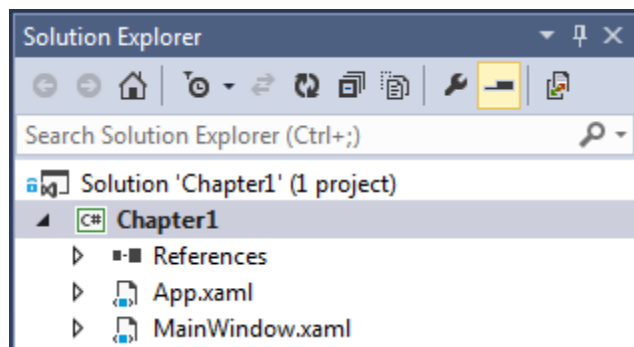
[Sign in with your enterprise login](#)

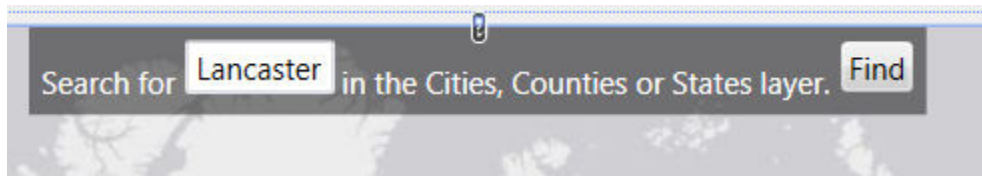
Need an account? [Sign up for free.](#)











```

<Run> in the Cities, Counties or States layer. </Run>
<Button Content="Find" Width="30" Click=""></Button>
</TextBlock>

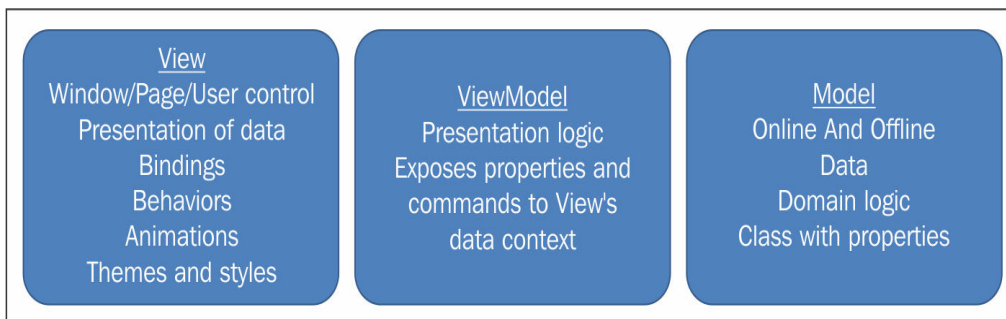
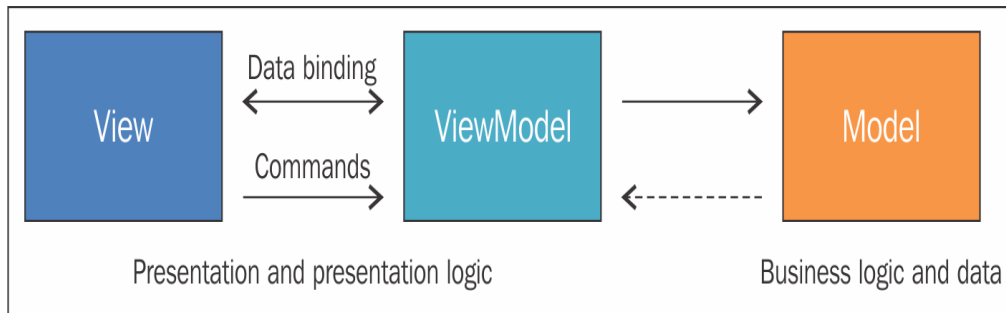
```

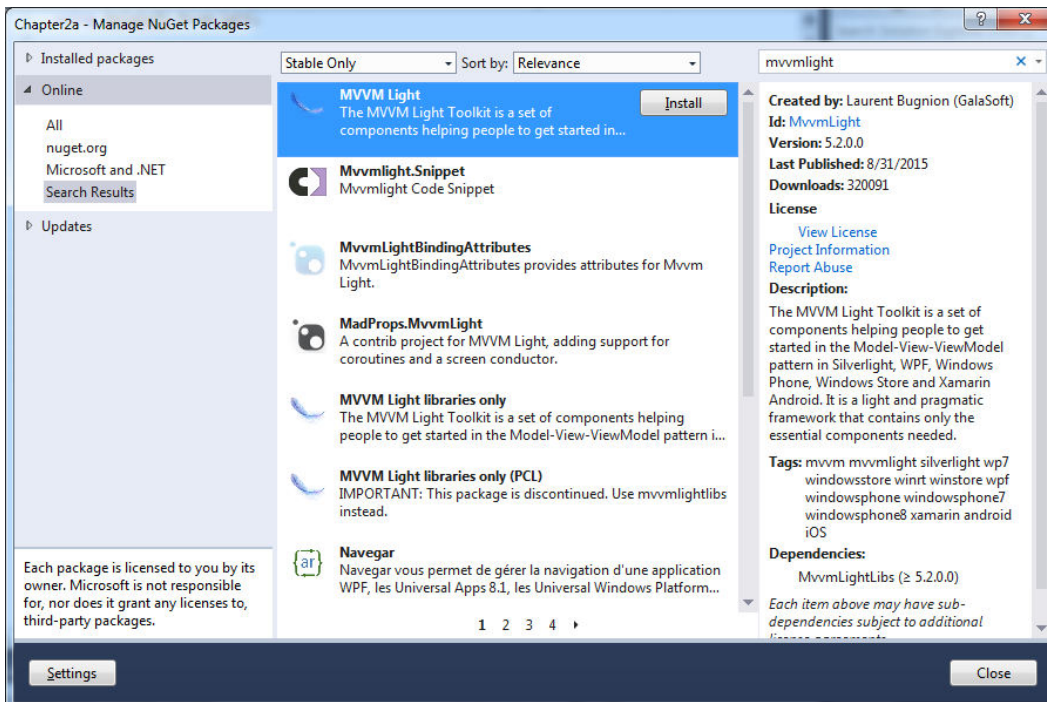
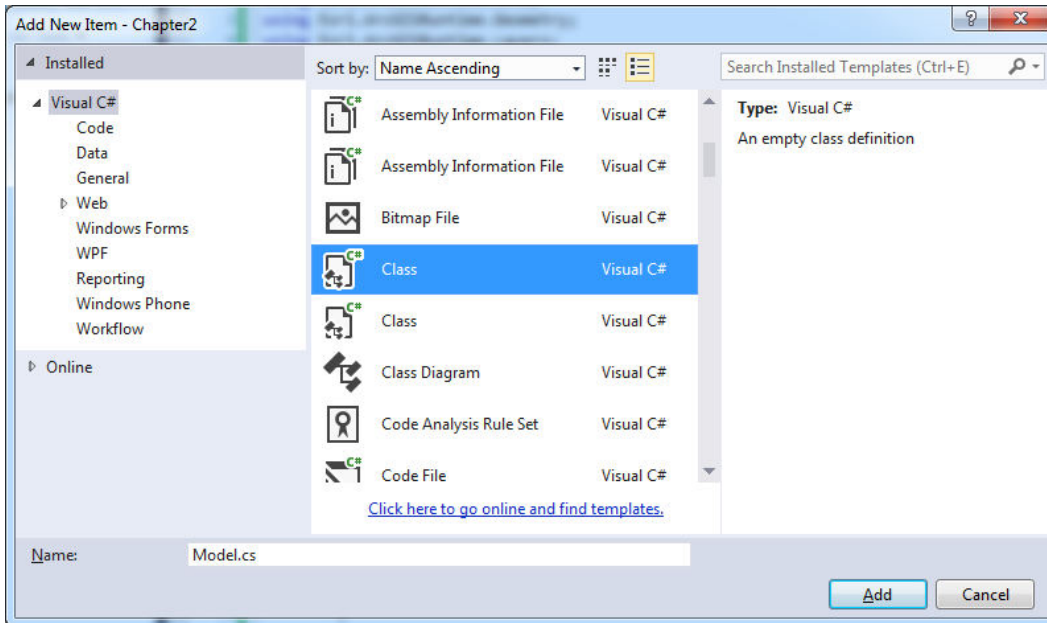
**<New Event Handler>** Bind event to a newly created method called 'Button\_Click'.

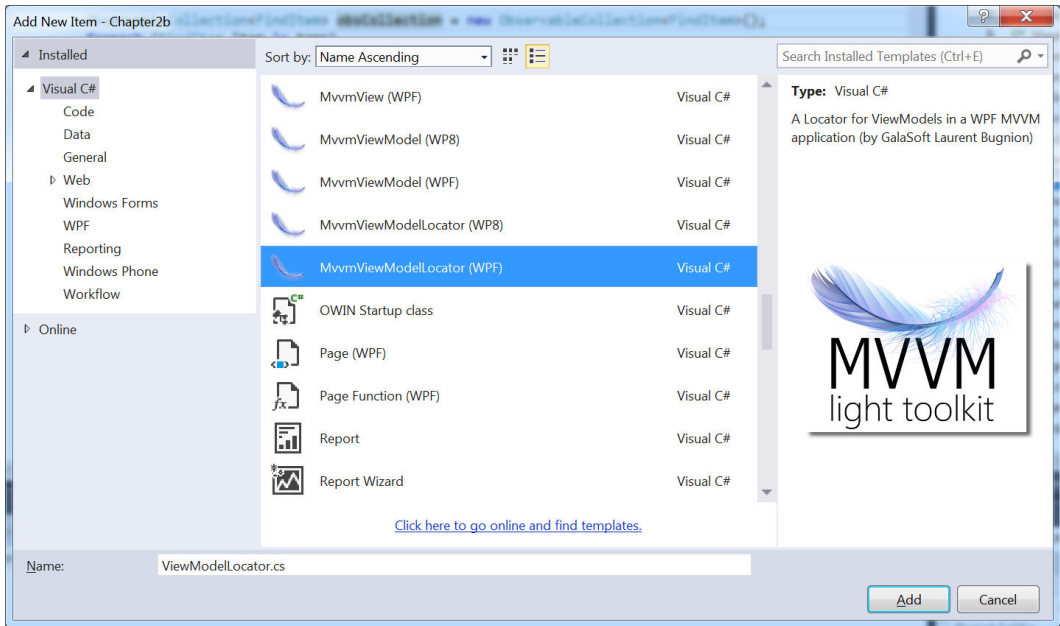
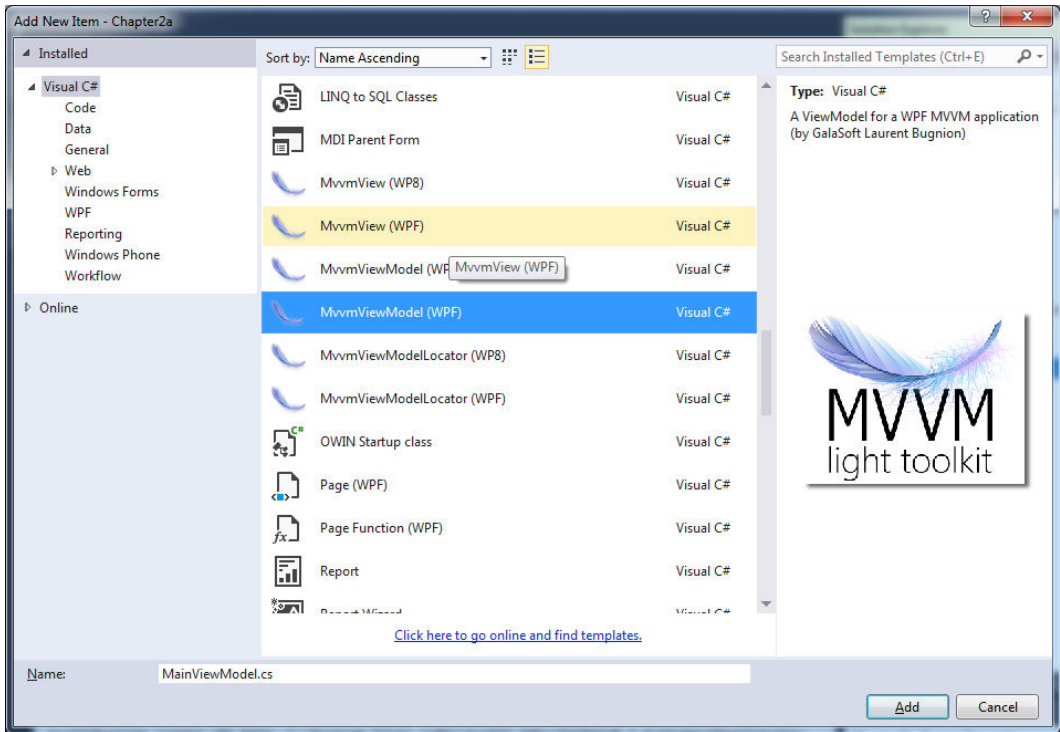
LayerID	LayerName	DisplayFieldName	FoundFieldName	Value	Feature
0	Cities	AREANAME	AREANAME	Lancaster	Esri.ArcGISRuntime.Layers.Graphic
0	Cities	AREANAME	AREANAME	Lancaster	Esri.ArcGISRuntime.Layers.Graphic
0	Cities	AREANAME	AREANAME	Lancaster	Esri.ArcGISRuntime.Layers.Graphic
0	Cities	AREANAME	AREANAME	Lancaster	Esri.ArcGISRuntime.Layers.Graphic
0	Cities	AREANAME	AREANAME	Lancaster	Esri.ArcGISRuntime.Layers.Graphic
3	Counties	NAME	NAME	Lancaster	Esri.ArcGISRuntime.Layers.Graphic
3	Counties	NAME	NAME	Lancaster	Esri.ArcGISRuntime.Layers.Graphic



## Chapter 2: The MVVM Pattern







Chapter2b - Manage NuGet Packages

Stable Only | Sort by: Relevance | json

Installed packages

Online

- All
- nuget.org
- Microsoft and .NET
- Search Results

Updates

Each package is licensed to you by its owner. Microsoft is not responsible for, nor does it grant any licenses to, third-party packages.

**Json.NET**  
Json.NET is a popular high-performance JSON framework for .NET Install

**JSON**  
A JSON parser in C#, supporting dynamic deserialization in .NET 4.0. A JSON parser in C#, supporting dynamic deserial...

**JSON Web Token Handler For the Microsoft .Net Frame...**  
This package provides an assembly containing classes which extend the .NET Framework 4.5 with the necessary logic to pr...

**json-serialize**  
JSON-Serialize.js provides conventions and helpers to manage serialization and deserialization of instances to/from JSON.

**Susanoo.Json**  
Adds dataset to JSON capability to Susanoo using JSON.NET

**Unity.Json.NET**  
Json.NET is a popular high-performance JSON framework for .NET

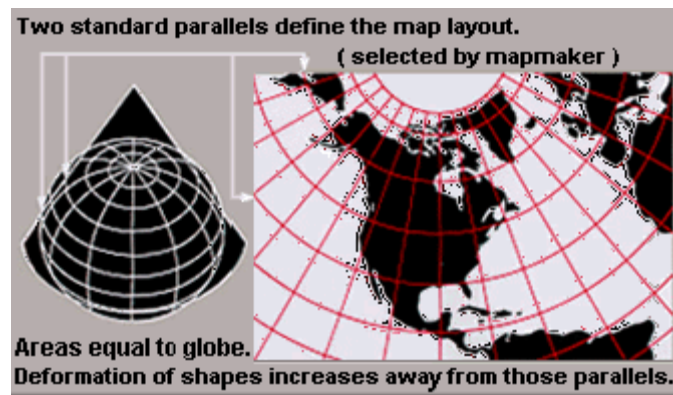
**TagCache.Redis.Json.Net**  
JSON.NET serialization for TagCache.Redis

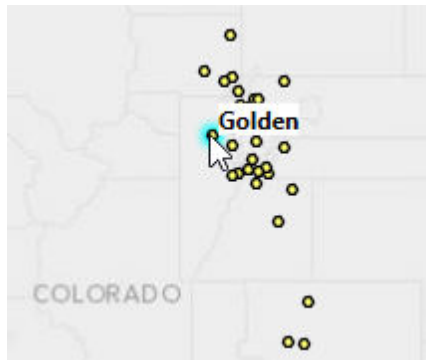
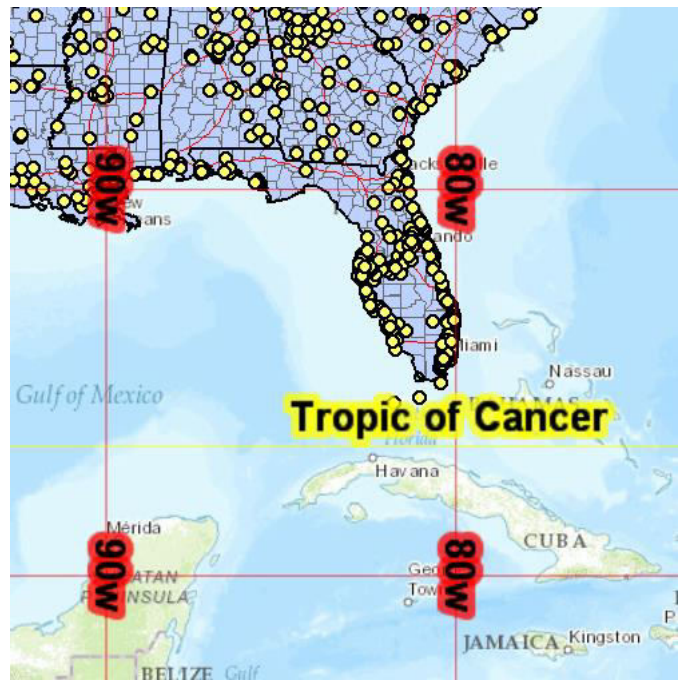
1 2 3 4 5 ▶

**Created by:** James Newton-King  
**Id:** Newtonsoft.Json  
**Version:** 7.0.1  
**Last Published:** 6/22/2015  
**Downloads:** 18431773  
**License**  
[View License](#)  
[Project Information](#)  
[Report Abuse](#)  
**Description:**  
Json.NET is a popular high-performance JSON framework for .NET  
**Tags:** json  
**Dependencies:**  
*No Dependencies*

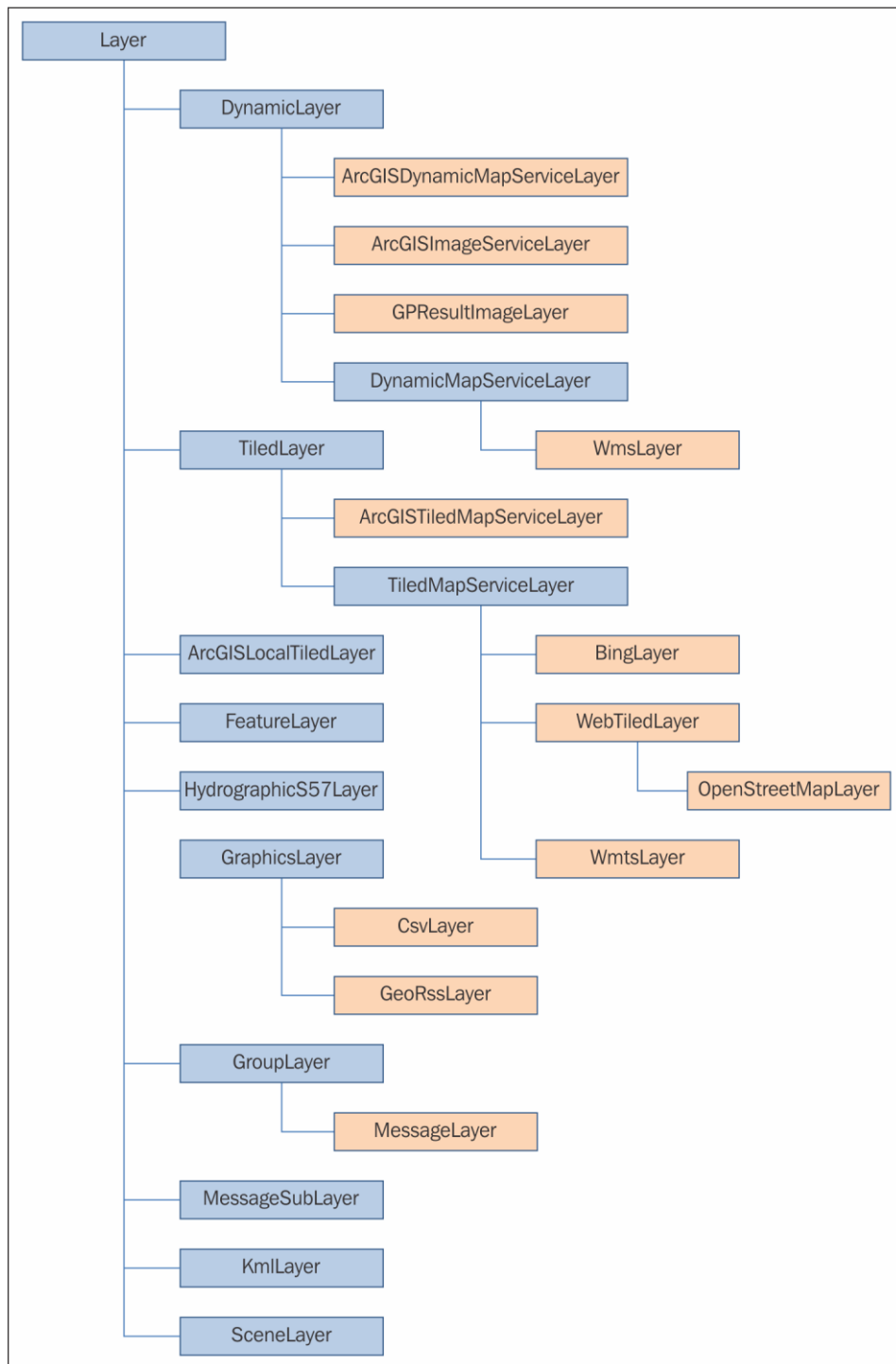
Settings Close

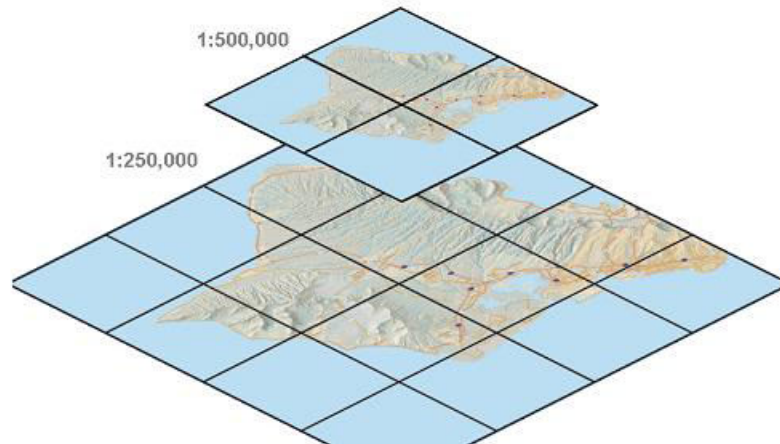
## Chapter 3: Maps and Layers



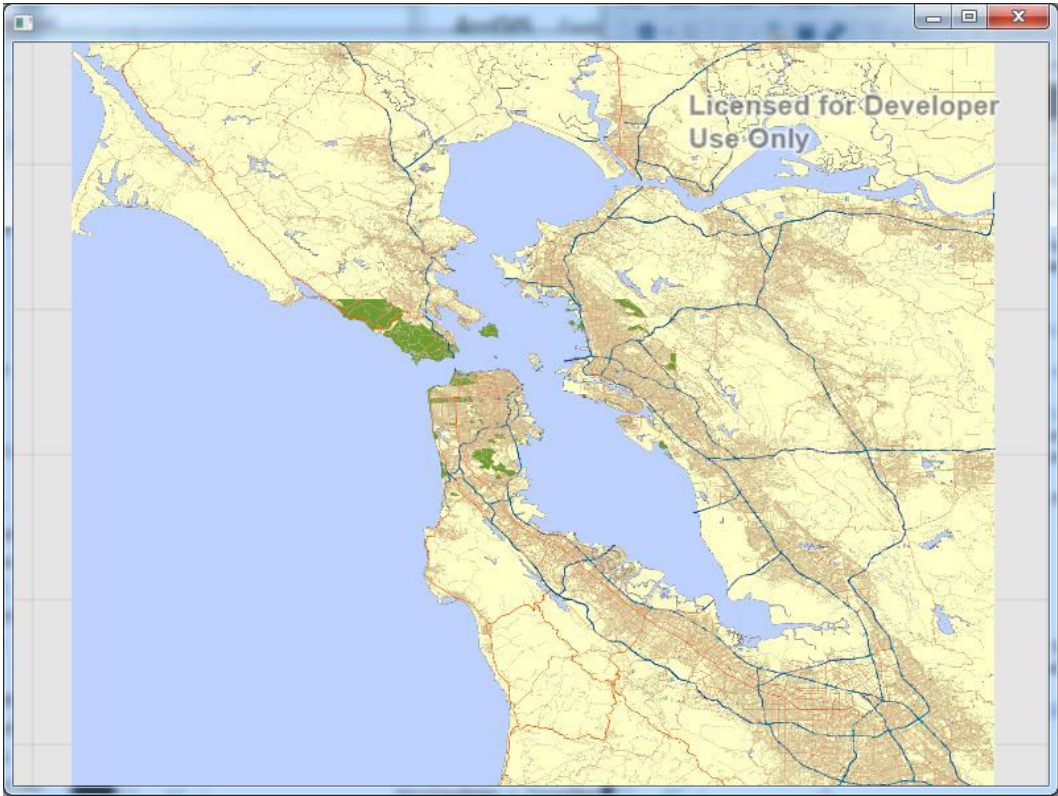




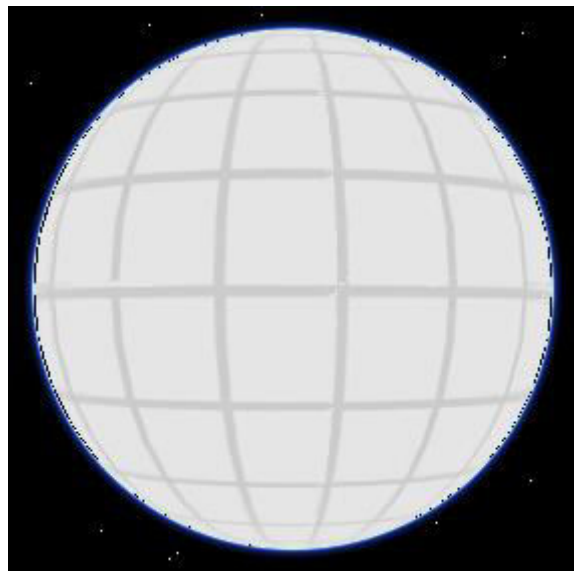


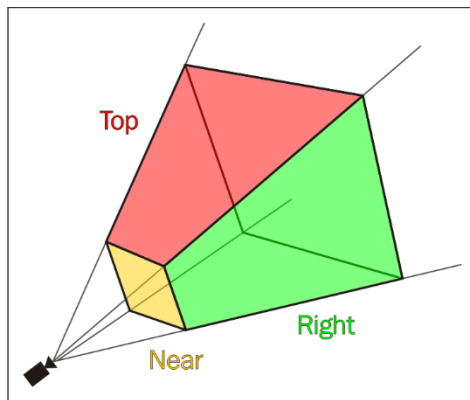
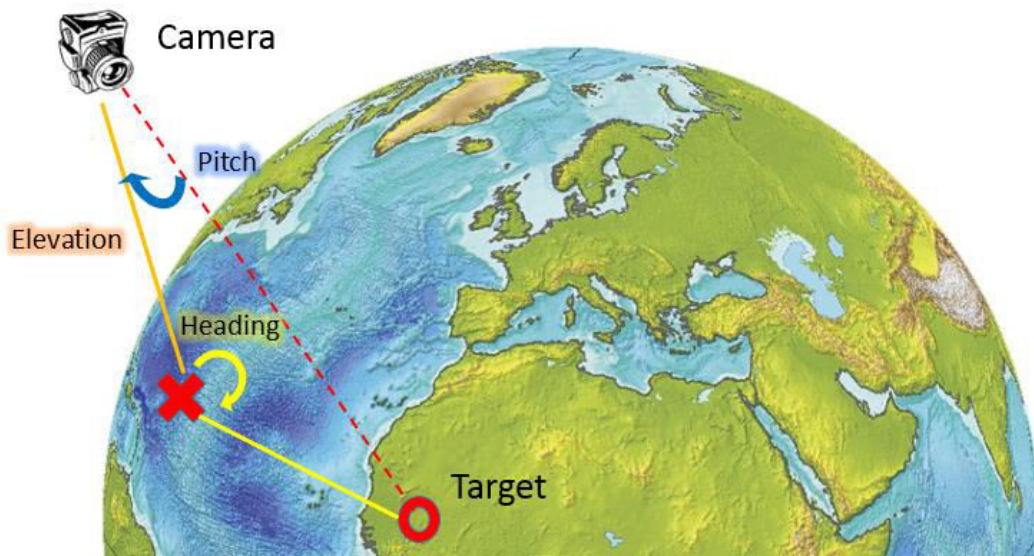


- [911CallsHotspot](#) (GPSTable)
- [911CallsHotspot](#) (MapServer)
- [Census](#) (MapServer)
- [CharlotteLAS](#) (ImageServer)
- [CommercialDamageAssessment](#) (FeatureServer)
- [CommercialDamageAssessment](#) (MapServer)
- [CommunityAddressing](#) (FeatureServer)
- [CommunityAddressing](#) (MapServer)
- [DamageAssessment](#) (FeatureServer)
- [DamageAssessment](#) (MapServer)
- [DamageAssessmentStatePlane](#) (FeatureServer)
- [DamageAssessmentStatePlane](#) (MapServer)
- [EmergencyFacilities](#) (FeatureServer)

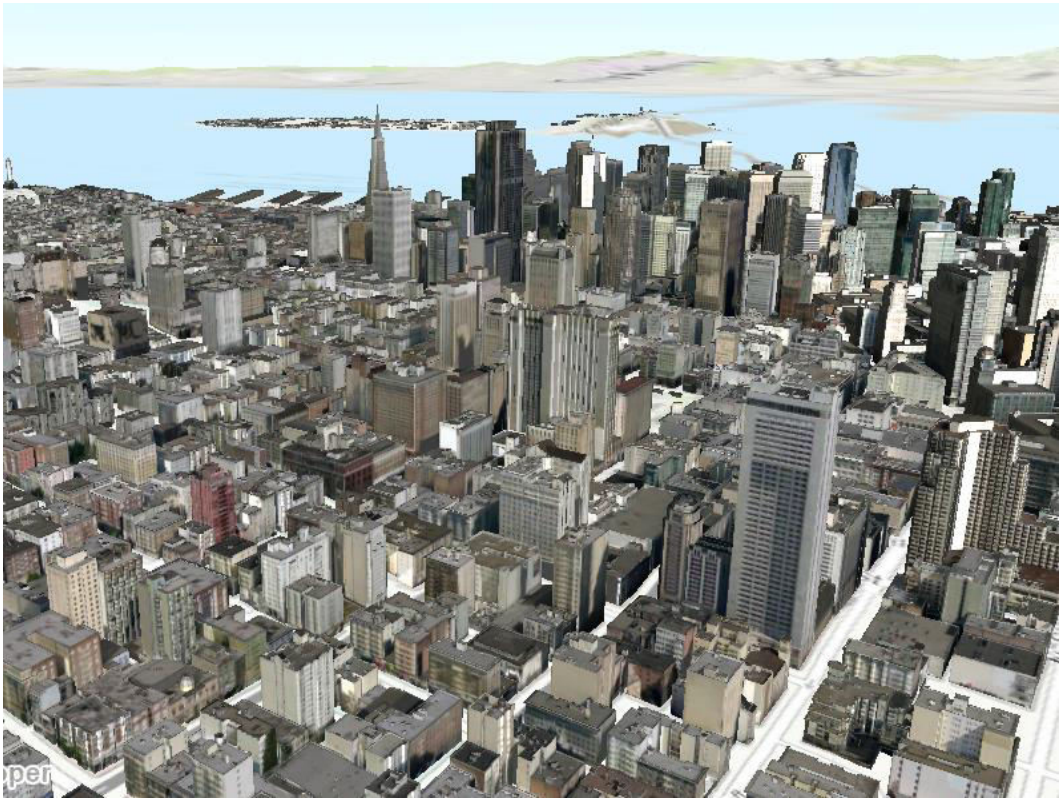


## Chapter 4: From 2D to 3D

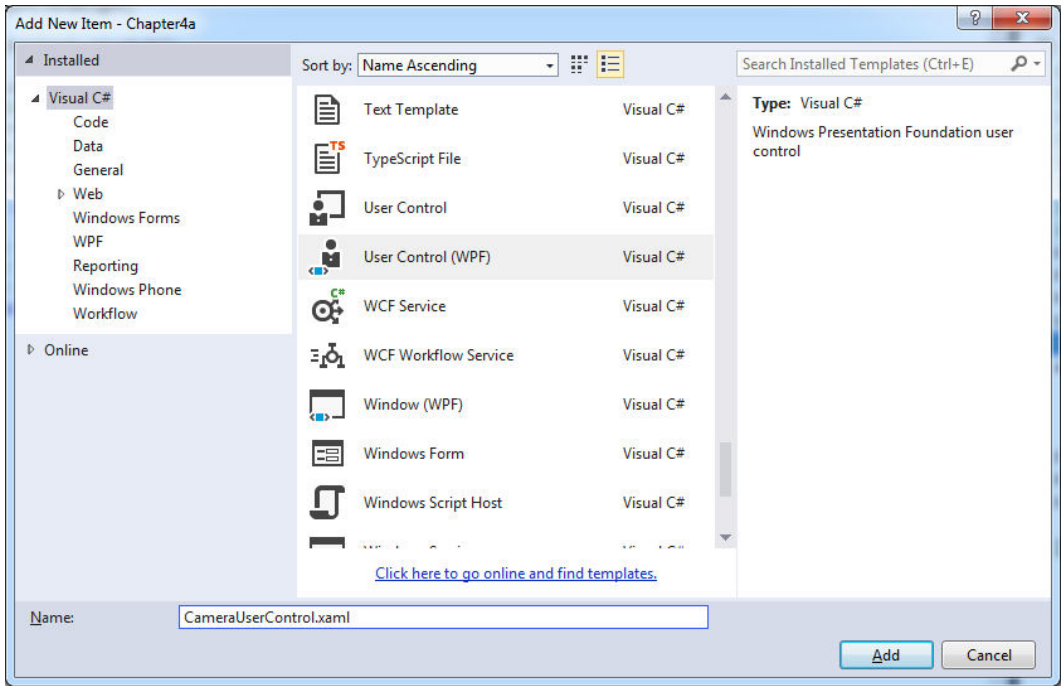


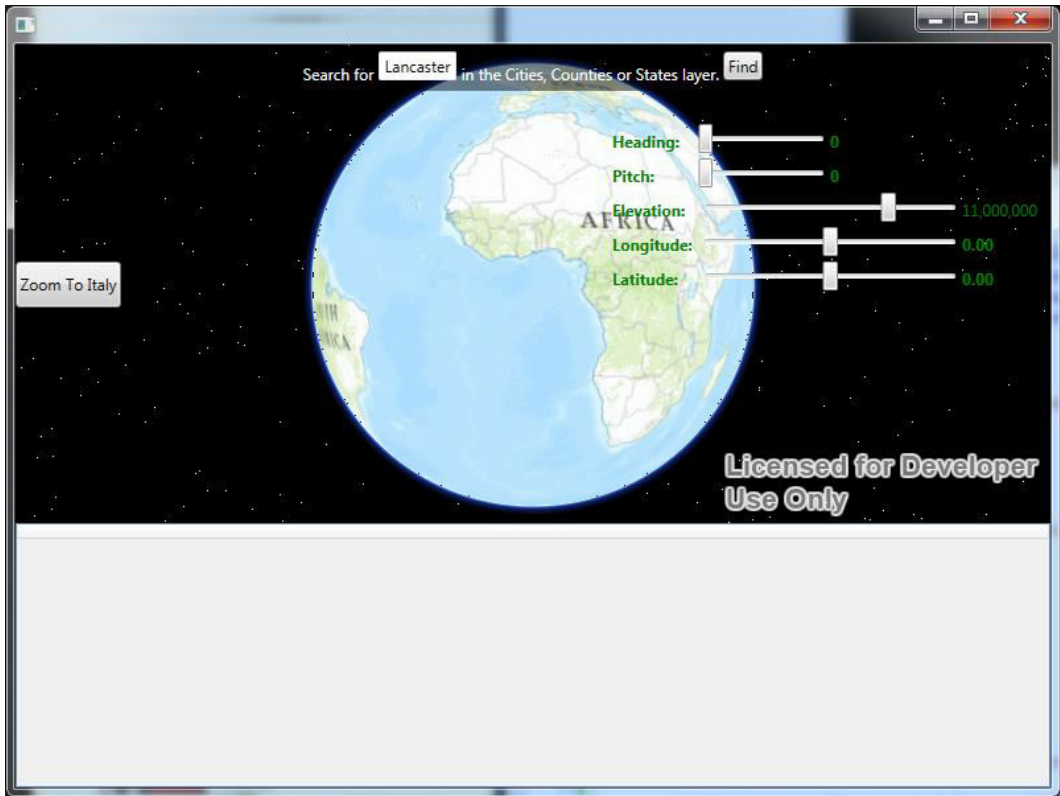


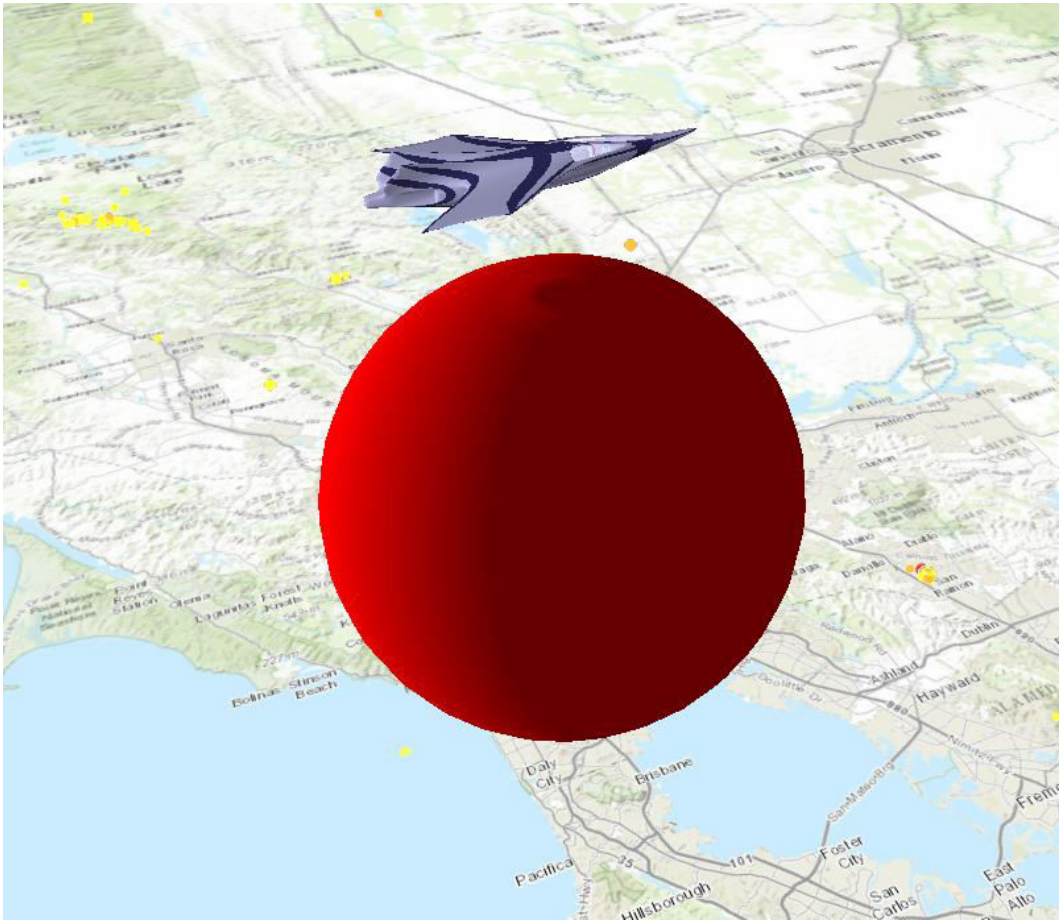




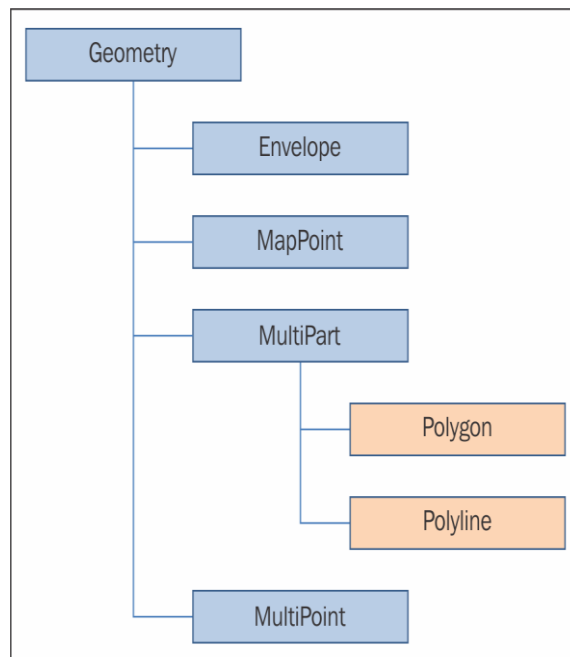
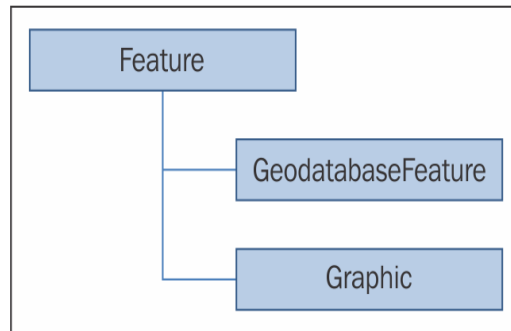


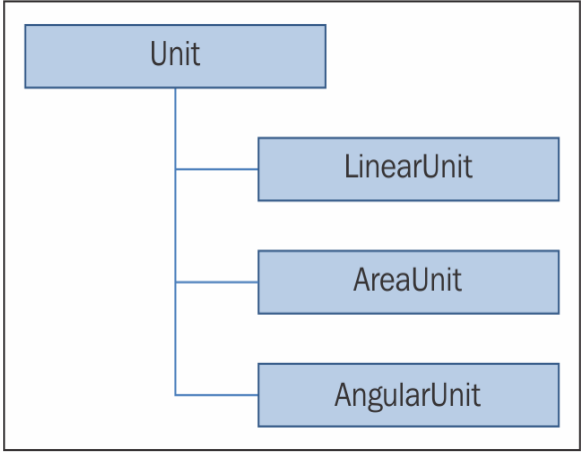
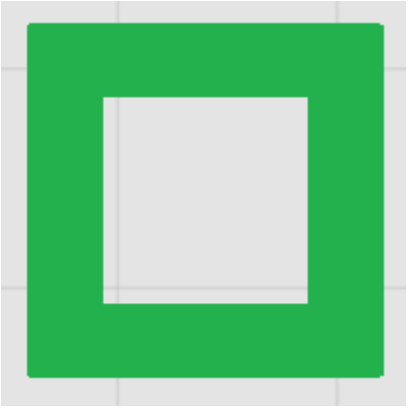




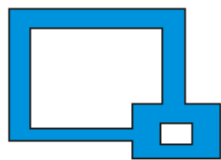


## Chapter 5: Geometry and Symbology

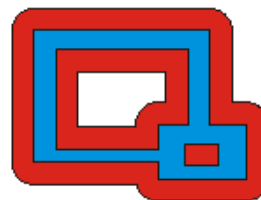




Original



Buffer



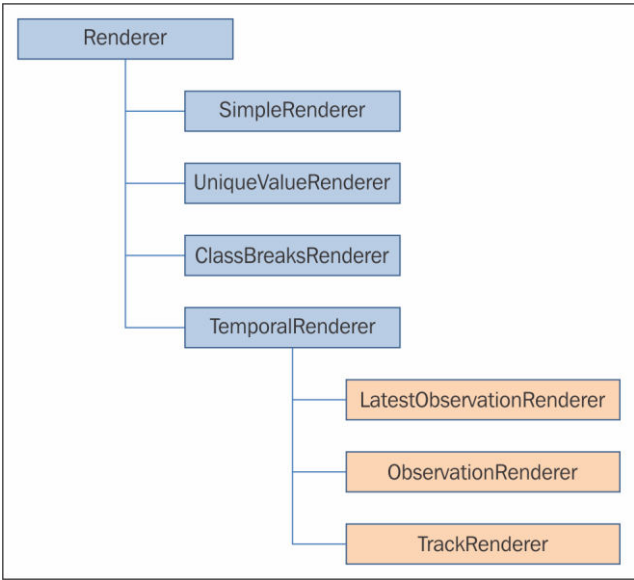
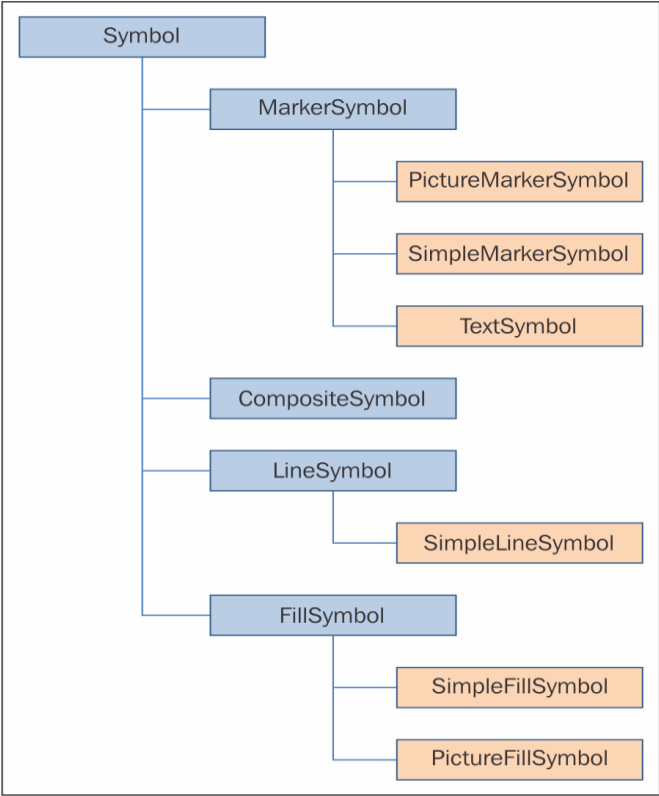
1,000 km Buffer



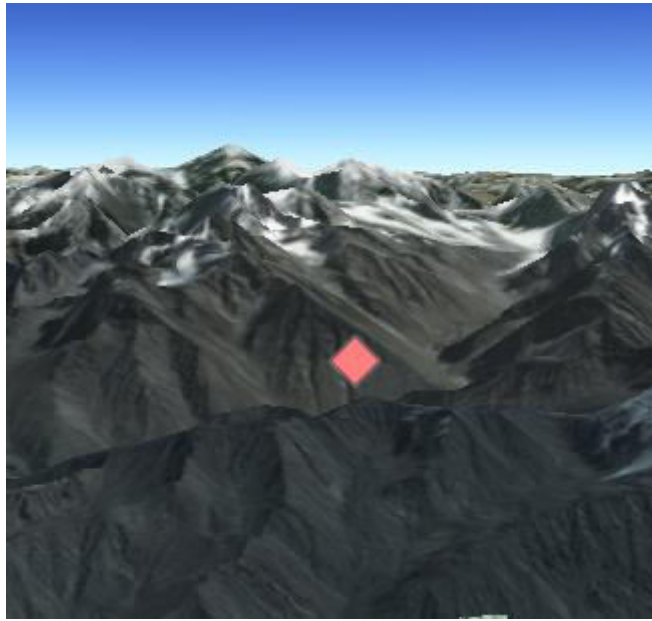
Planar

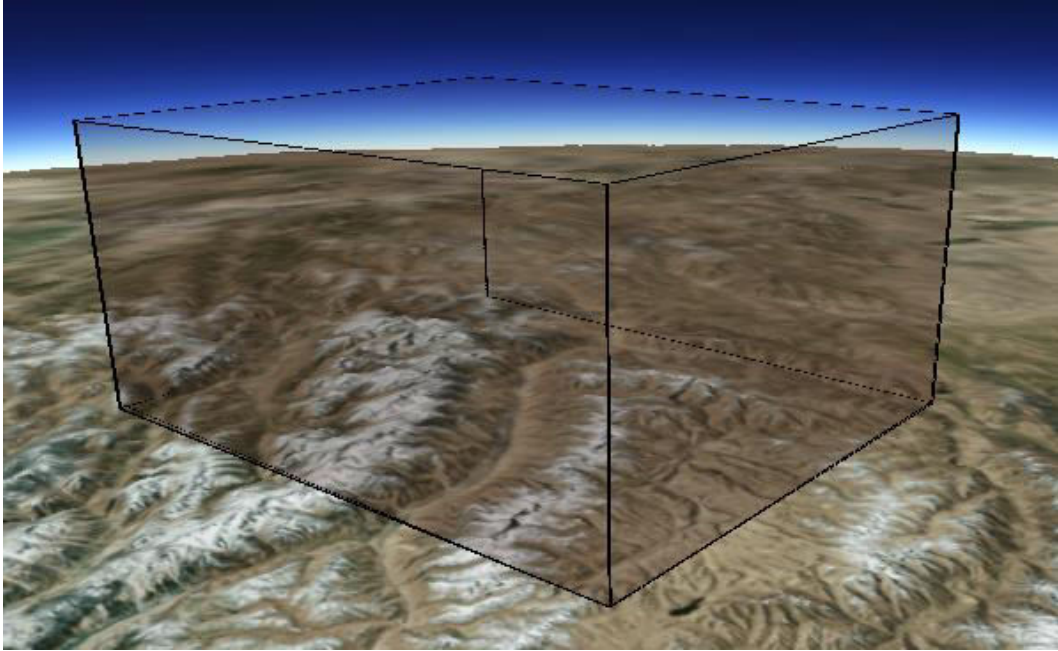
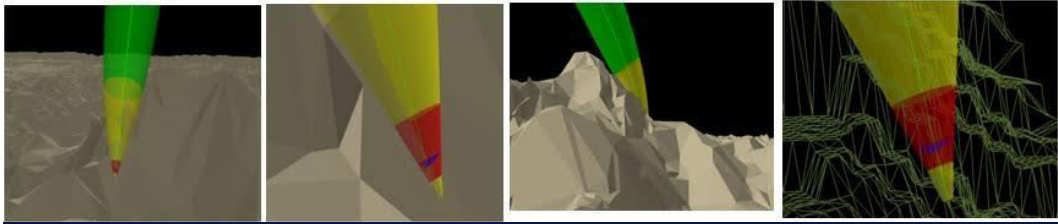


Geodesic

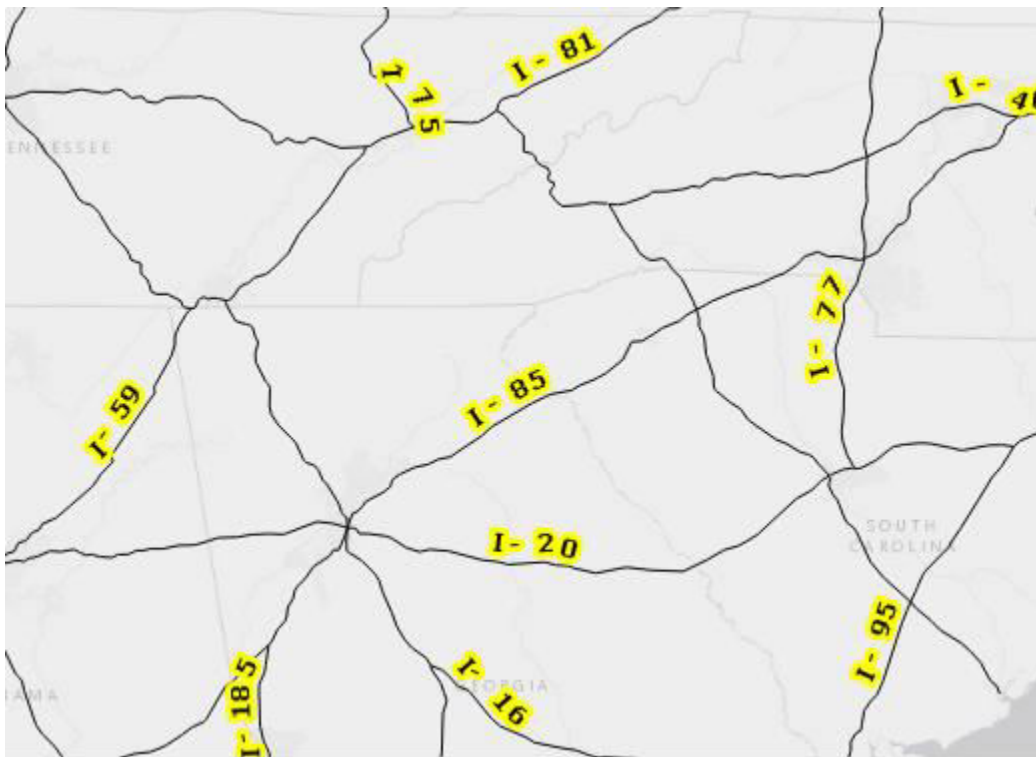
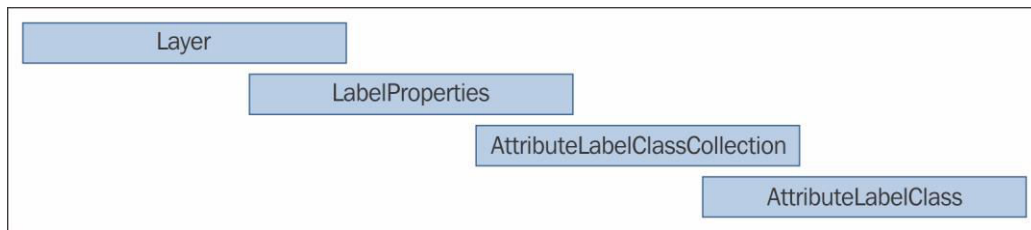


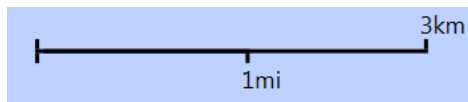


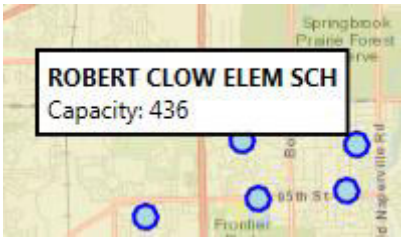




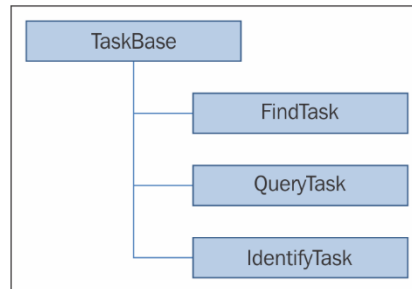
## Chapter 6: Displaying Information



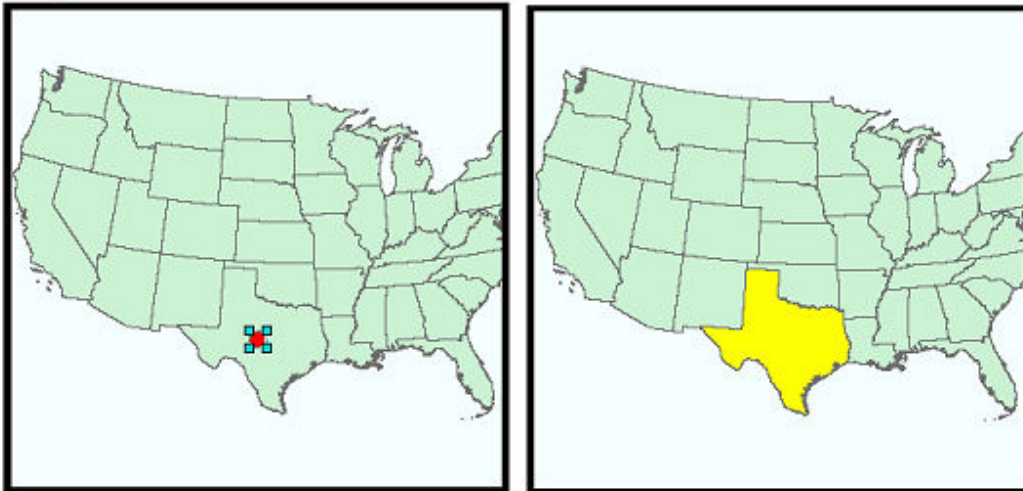




## Chapter 7: Finding, Querying, and Identifying Features



MapPoint

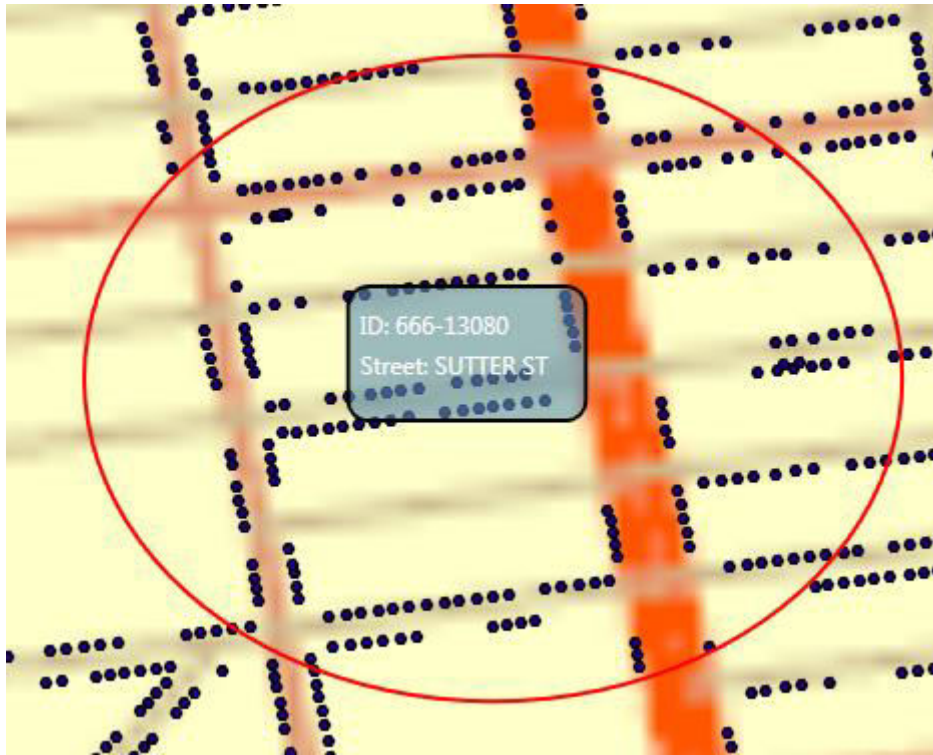


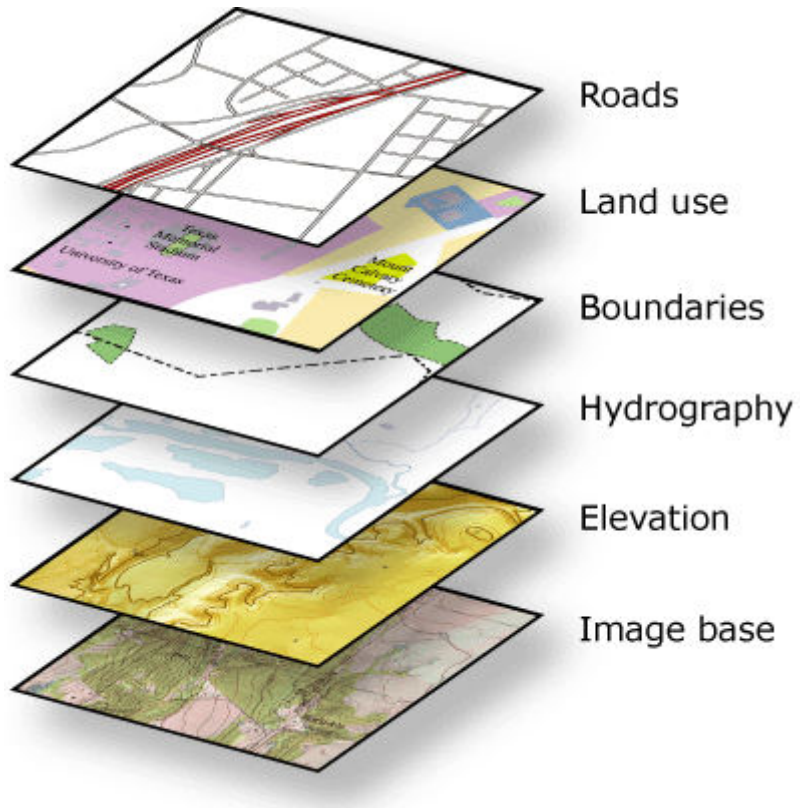




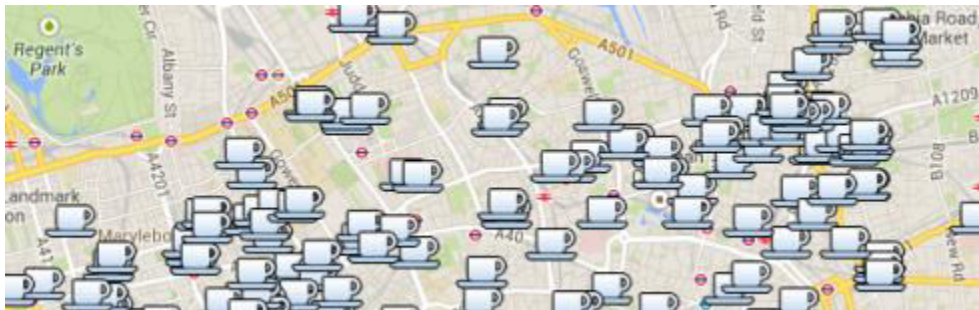
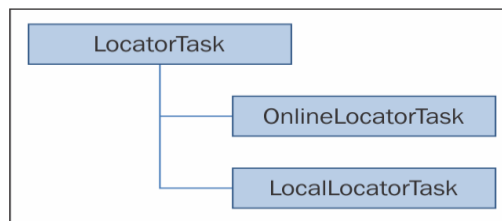
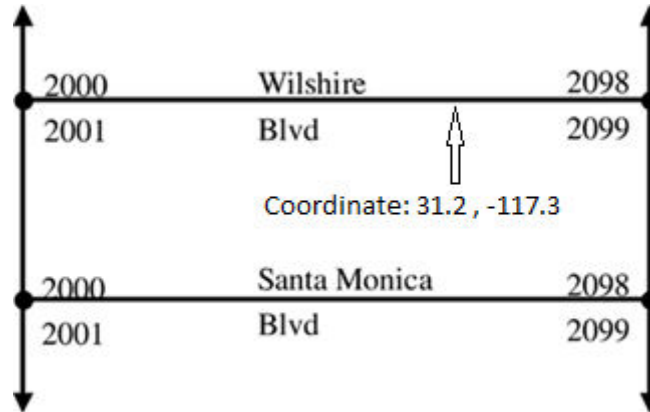
**Relationships:**

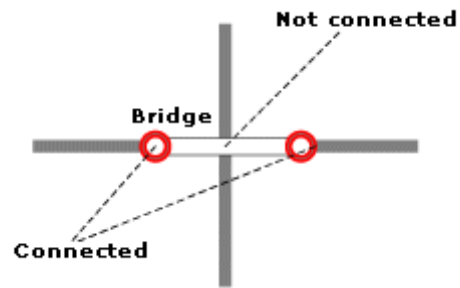
- Tops 2 Well (3) -- *Related To:* [Wells](#) (0)





## Chapter 8: Geocoding and Routing





### Route Layers:

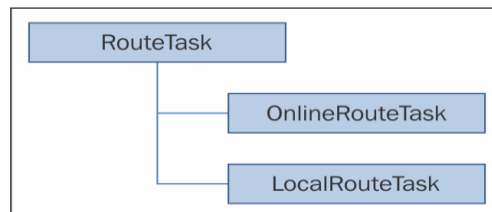
- [Route](#)

### Closest Facility Layers:

- [ClosestFacility](#)

### Service Area Layers:

- [ServiceArea](#)

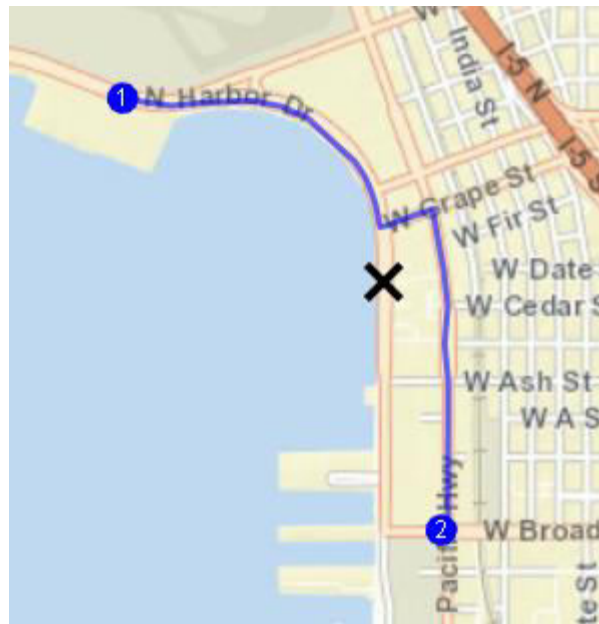


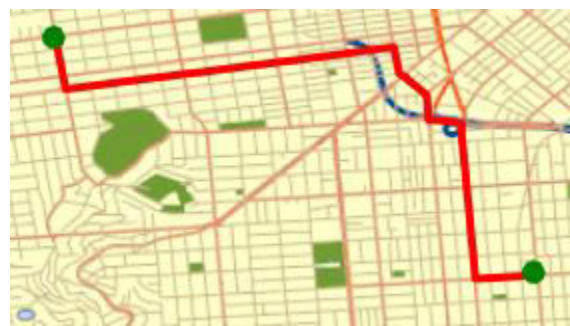
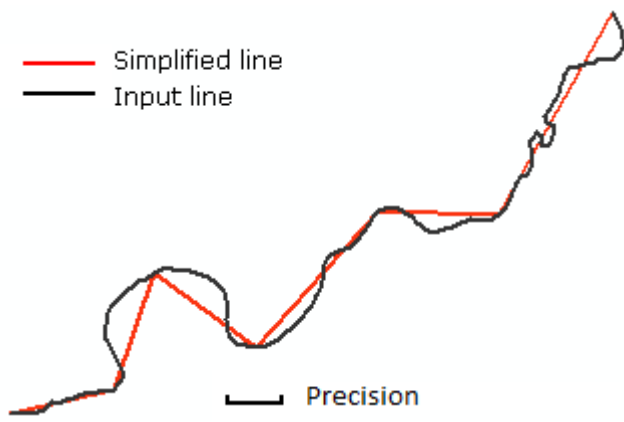
- **Minutes**

- Usage Type: esriNAUTCost
  - Units: esriNAUMinutes
  - Data Type: esriNADTDouble
  - Restriction Usage ParameterName: null
  - Parameter Names:

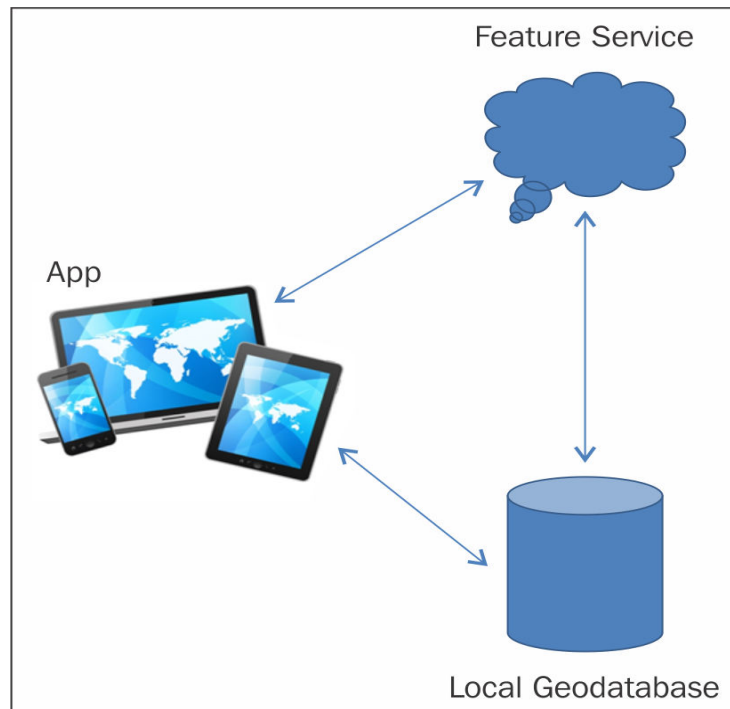
- **Meters**

- Usage Type: esriNAUTCost
  - Units: esriNAUMeters
  - Data Type: esriNADTDouble
  - Restriction Usage ParameterName: null
  - Parameter Names:





## Chapter 9: Editing Features

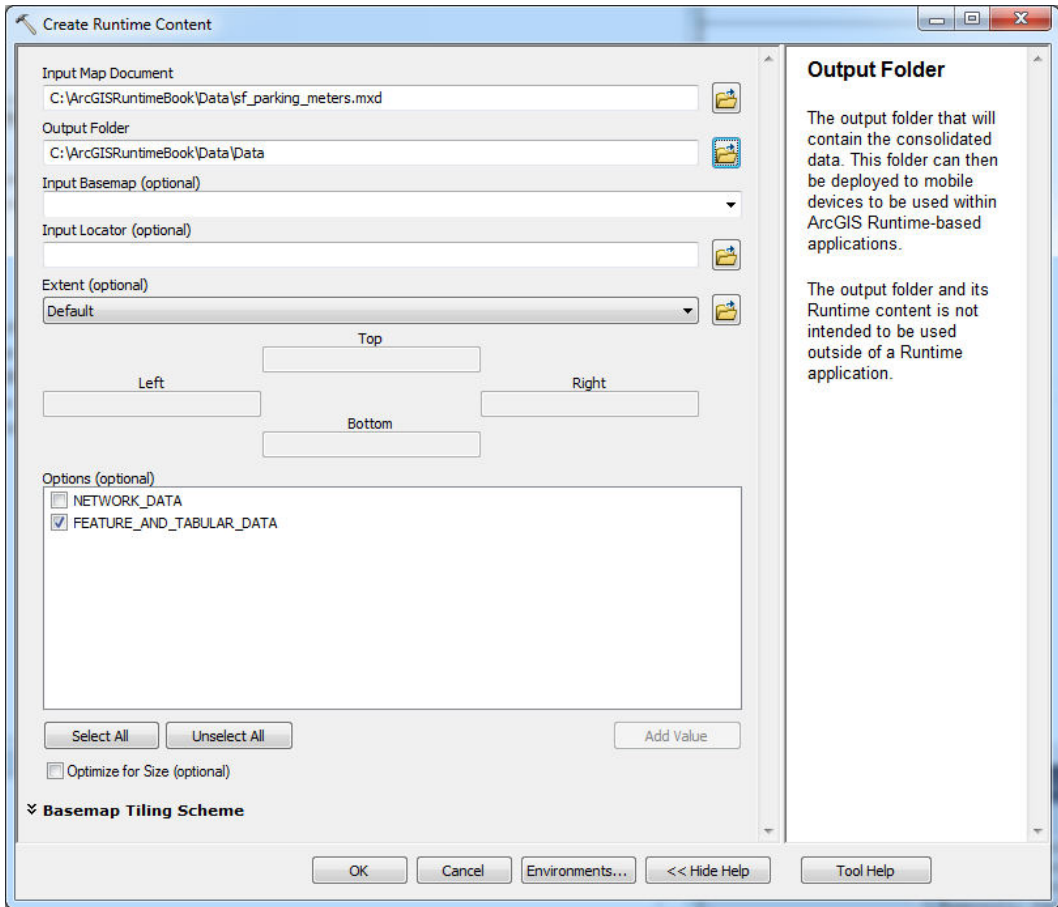


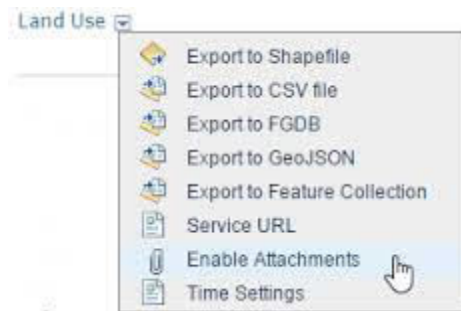
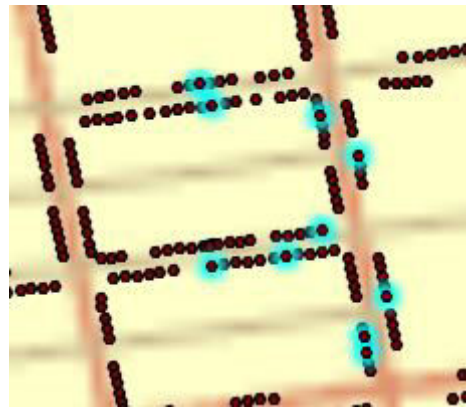


### Create Replica : (sf\_parking\_meters)

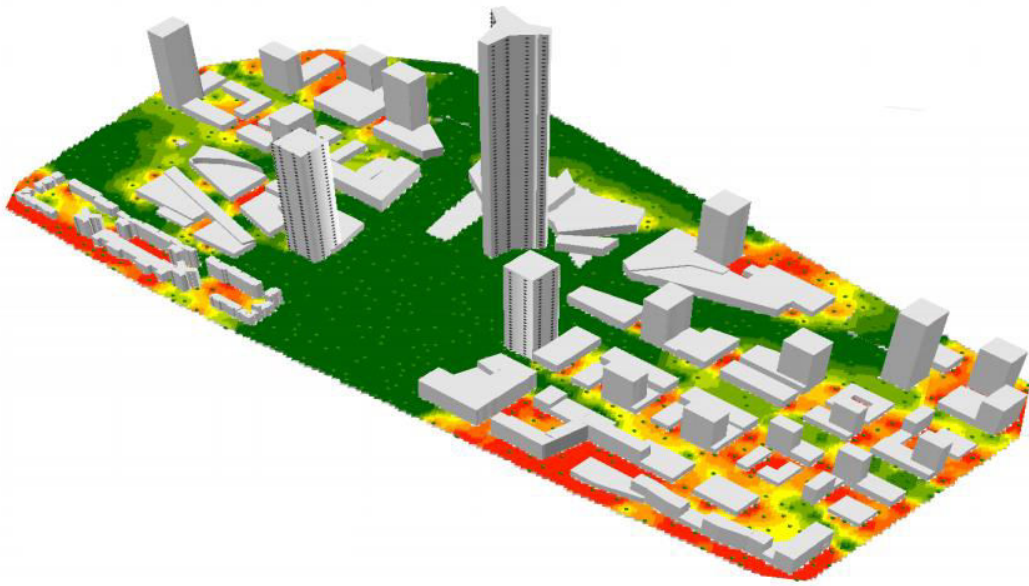
Replica Name:	<input type="text" value="test1"/>
Layers:	<input type="text" value="0"/>
Layer Queries:	<input type="text"/>
Geometry:	<input -122.25,\\n\"ymax\":="" -122.7,\\n\"ymin\":="" 37.64,\\n\"xmax\":="" 37.9\""="" type="text" value="\" xmin\":=""/>
Geometry Type:	<input type="text" value="Envelope"/>
Input Spatial Reference:	<input type="text" value="4326"/>
Replica Spatial Reference:	<input type="text"/>
Transport Type:	<input type="text" value="Url"/>
Return Attachments:	<input type="radio"/> True <input checked="" type="radio"/> False
Return Attachments Data By Url:	<input type="radio"/> True <input checked="" type="radio"/> False
Create Replica Asynchronously:	<input type="radio"/> True <input checked="" type="radio"/> False
Sync Model:	<input type="text" value="perLayer"/>
Data Format:	<input type="text" value="sqlite"/>
Replica Options:	<input type="text"/>
Format:	<input type="text" value="HTML"/>
<input type="button" value="Create Replica"/>	

```
{  
  "transportType": "esriTransportTypeUrl",  
  "responseType": "esriReplicaResponseTypeData",  
  "URL": "http://localhost/was/rest/directories/arcgisoutput/sf_parking_meters_MapServer/_ags_data{4106EEFA33884A399AE3773F8FC14C30}.geodatabase"  
}
```





## Chapter 10: Spatial Analysis



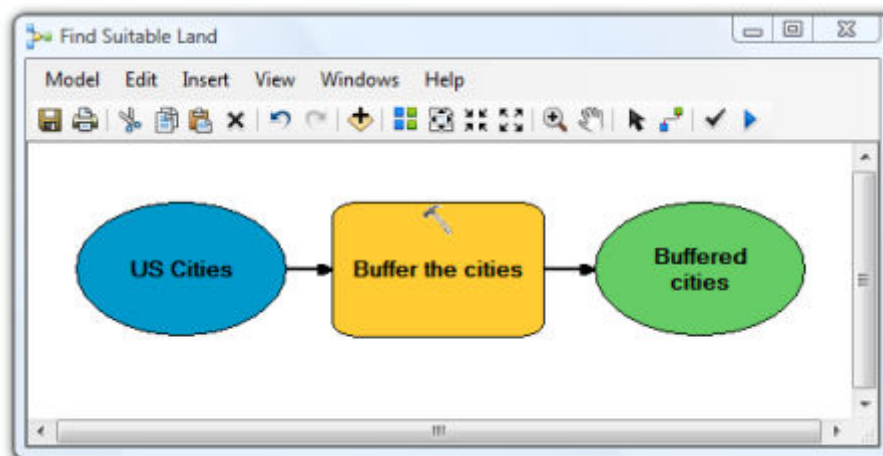
Geoprocessing

Find Tools

Favorites | **Toolboxes**

- 3D Analyst Tools
- Analysis Tools
- Cartography Tools
- Conversion Tools
- Data Management Tools
- Data Reviewer Tools
- Editing Tools
- Geocoding Tools
- Geostatistical Analyst Tools
- Linear Referencing Tools
- Multidimension Tools
- Network Analyst Tools
- Server Tools
- Space Time Pattern Mining Tools
- Spatial Analyst Tools
- Spatial Statistics Tools
- Workflow Manager Tools

Project Geoprocessing



## ArcGIS REST Services Directory


[Home](#) > [services](#) > [Elevation](#) > [ESRI Elevation World \(GPServer\)](#)

[JSON](#) | [SOAP](#) | [WPS](#)

## Elevation/ESRI\_Elevation\_World (GPServer)

**Service Description:** Calculates the viewshed of a point given a user c

### Tasks:

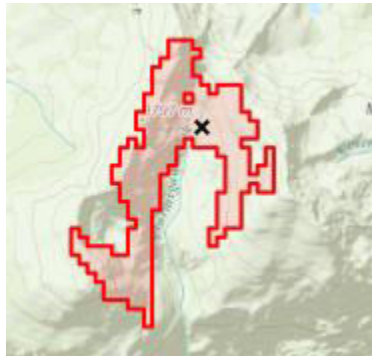
- [Viewshed](#) 

**Execution Type:** esriExecutionTypeSynchronous

**Result Map Server Name:**

**MaximumRecords:** 1000

**Child Resources:** [Info](#)



## Task: Viewshed

**Display Name:** Viewshed

**Description:** Calculates the viewshed of a point given a user defined location and viewing distance.

**Category:**

**Help URL:**

[http://sampleserver6.arcgisonline.com/arcgis/rest/directories/arcgisoutput/Elevation/ESRI\\_Elevation\\_World\\_GPService/Elevation\\_ESRI](http://sampleserver6.arcgisonline.com/arcgis/rest/directories/arcgisoutput/Elevation/ESRI_Elevation_World_GPService/Elevation_ESRI)

**Execution Type:** esriExecutionTypeSynchronous ← synchronous or asynchronous

**Parameters:** ← Parameters

**Parameter:** Input\_Observation\_Point ← Parameter name

**Data Type:** GPFeatureRecordSetLayer ← Data Type

**Display Name:** Input\_Observation\_Point

**Description:** The input location from which the viewshed should be calculated.

**Direction:** esriGPPParameterDirectionInput ← Direction: input or output

**Default Value:**

**Geometry Type:** esriGeometryPoint

**HasZ:** false

**HasM:** false

**Spatial Reference:** 54003 (54003)

**Fields:**


- OBJECTID ( type: esriFieldTypeOID , alias: OBJECTID )
- OffsetA ( type: esriFieldTypeSmallInteger , alias: OffsetA )


**Features:** None.

**Parameter Type:** esriGPPParameterTypeRequired ← Required or Optional

**Category:**



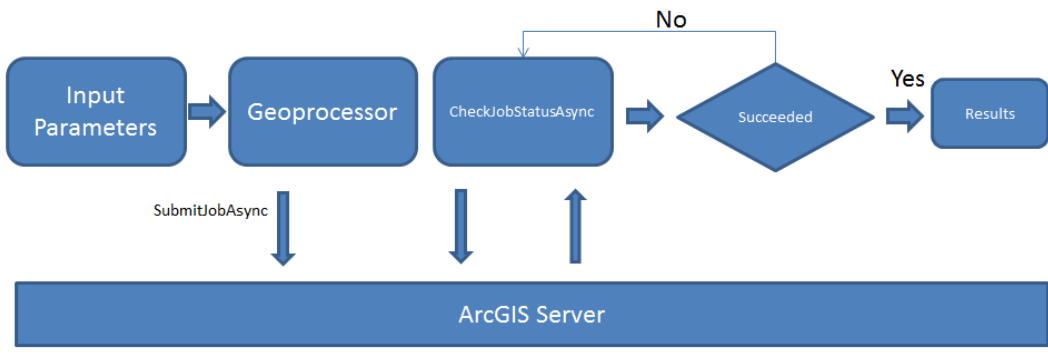
**Parameter:** Viewshed\_Distance   
**Data Type:** GPLinearUnit  
**Display Name:** Viewshed\_Distance  
**Description:** The maximum distance from the input point for which the viewshed should be calculated. The maximum allowed distance is 20000 meters.  
**Direction:** esriGPPParameterDirectionInput  
**Default Value:** 15000.0 (esriMeters)  
**Parameter Type:** esriGPPParameterTypeRequired  
**Category:**

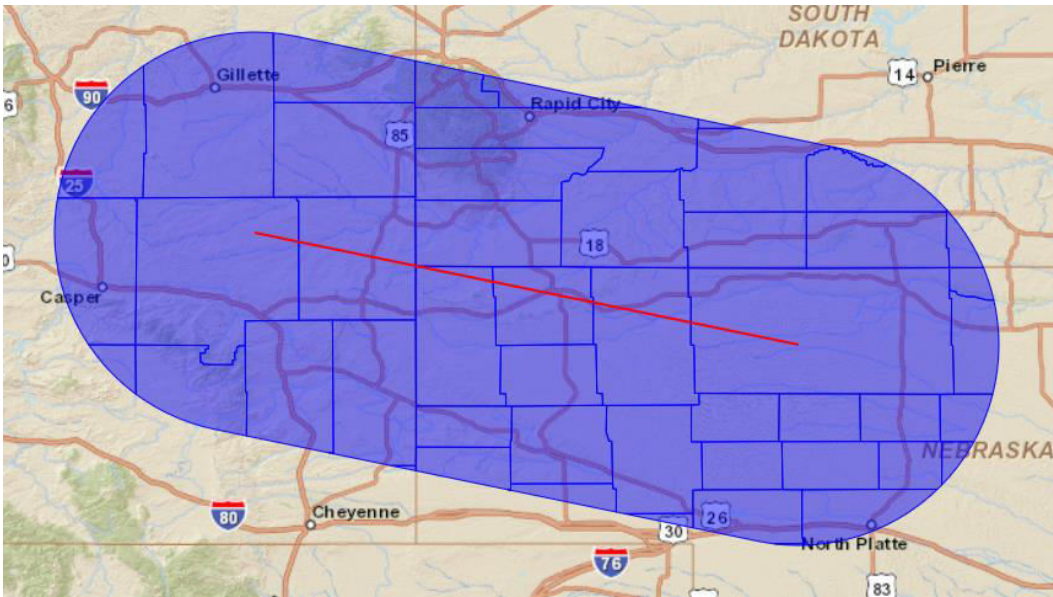
**Parameter:** Viewshed\_Result   
**Data Type:** GPFeatureRecordSetLayer  
**Display Name:** Viewshed\_Result  
**Description:** The resulting viewshed feature class given the user location and maximum distance.  
**Direction:** esriGPPParameterDirectionOutput  
**Default Value:**  
**Geometry Type:** esriGeometryPolygon  
**HasZ:** false  
**HasM:** false  
**Spatial Reference:** 54003 (54003)  
**Fields:**

- OBJECTID ( type: esriFieldTypeOID , alias: OBJECTID )
- Id ( type: esriFieldTypeInteger , alias: Id )
- grid\_code ( type: esriFieldTypeInteger , alias: grid\_code )
- Shape\_Length ( type: esriFieldTypeDouble , alias: Shape\_Length )
- Shape\_Area ( type: esriFieldTypeDouble , alias: Shape\_Area )

**Features:** None.

**Parameter Type:** esriGPPParameterTypeRequired  
**Category:**





Service Editor

Connection: arcgis on (admin) Service Name:...

Import Add Result Preview Analyze Publish

- General
- Capabilities
- Geoprocessing
- Parameters**
- Pooling
- Processes
- EinsatzverwaltungBFG
- Save Data
- Select Excel File
- Output
- Item Description
- Sharing

### Parameters

Cluster:  Choose the Cluster hosting the service: default

Execution Mode

- Synchronous
- Asynchronous (Recommended for long-running services)

View results with a map service

Properties

Message Level: None

Maximum number of records returned by the server: 1000

Directories

Jobs Directory: C:\arcgisserver\directories\arcgisjobs

Virtual Jobs Directory: /rest/directories/arcgisjobs

Output Directory: C:\arcgisserver\directories\arcgisoutput

Virtual Output Directory: /rest/directories/arcgisoutput

[About geoprocessing service settings](#)

JSON

## Task: (ClipFeatures)

Execution Type: **Asynchronous**

Supported Operations: [Submit Job](#)

---

### Input Parameters

**Linear\_Unit** (required parameter)

Type: **GPLinearUnit**

**Input** (required parameter)

Type: **GPFeatureRecordSetLayer**

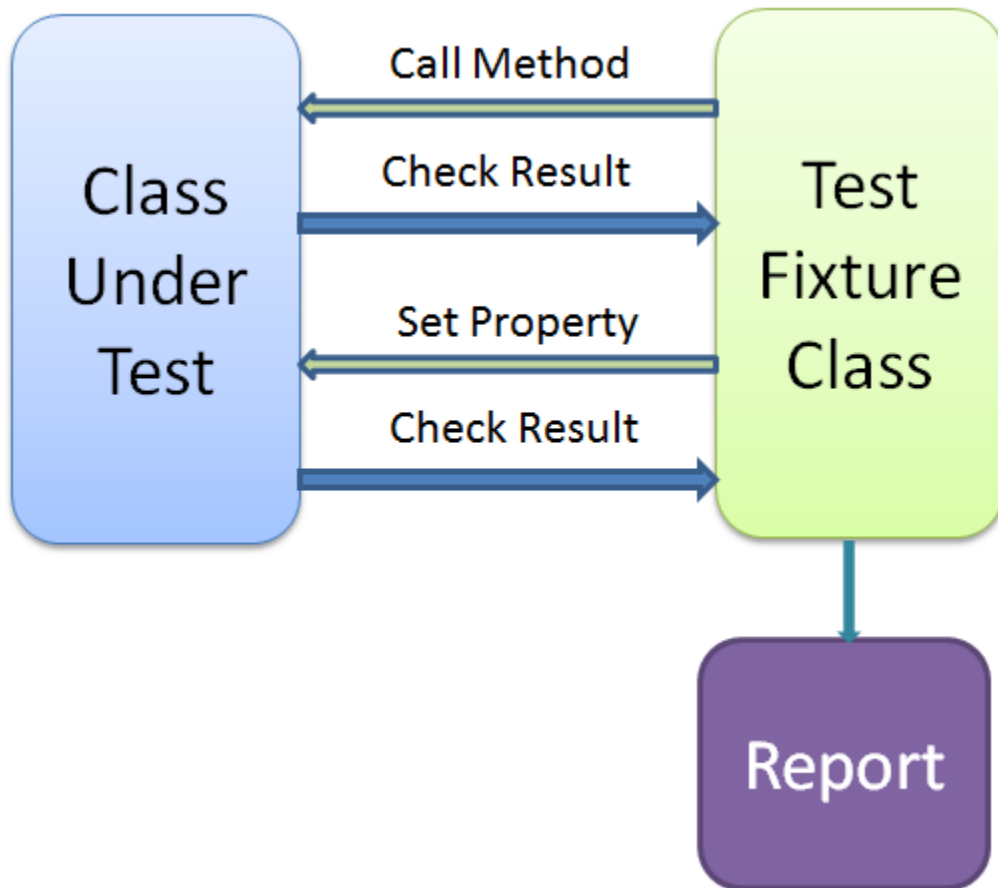
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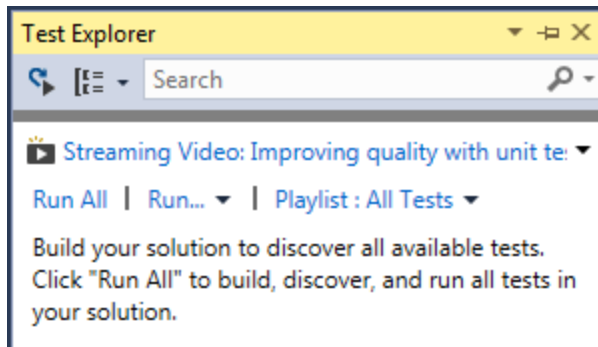
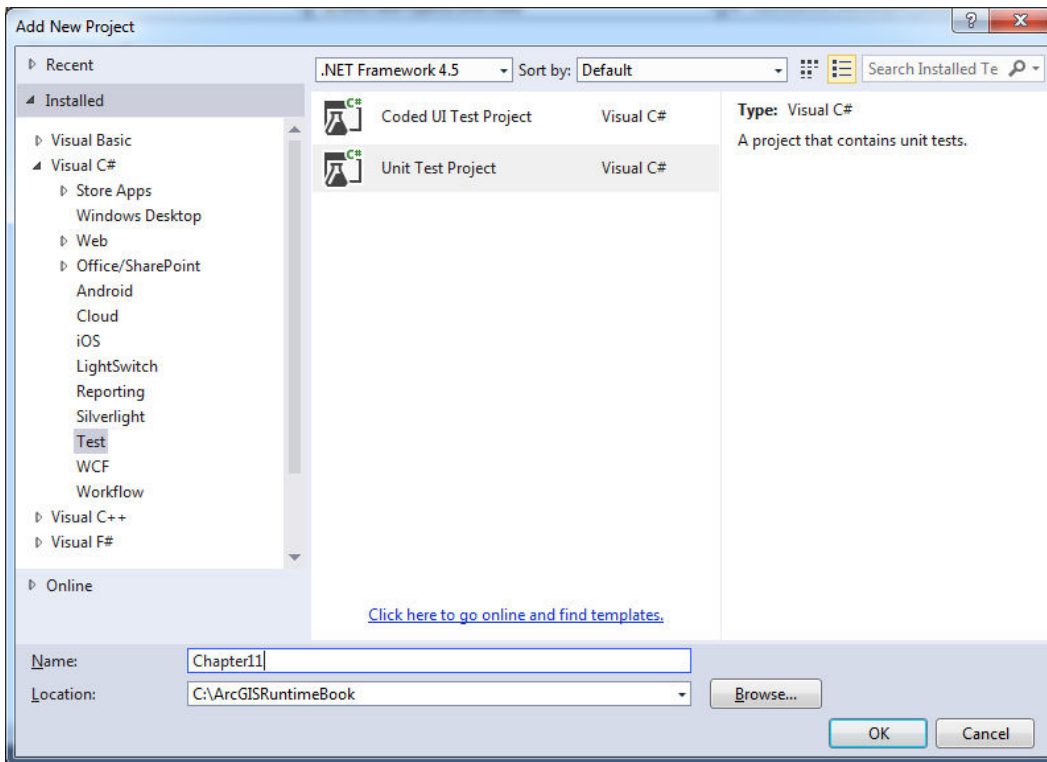
### Result Parameters

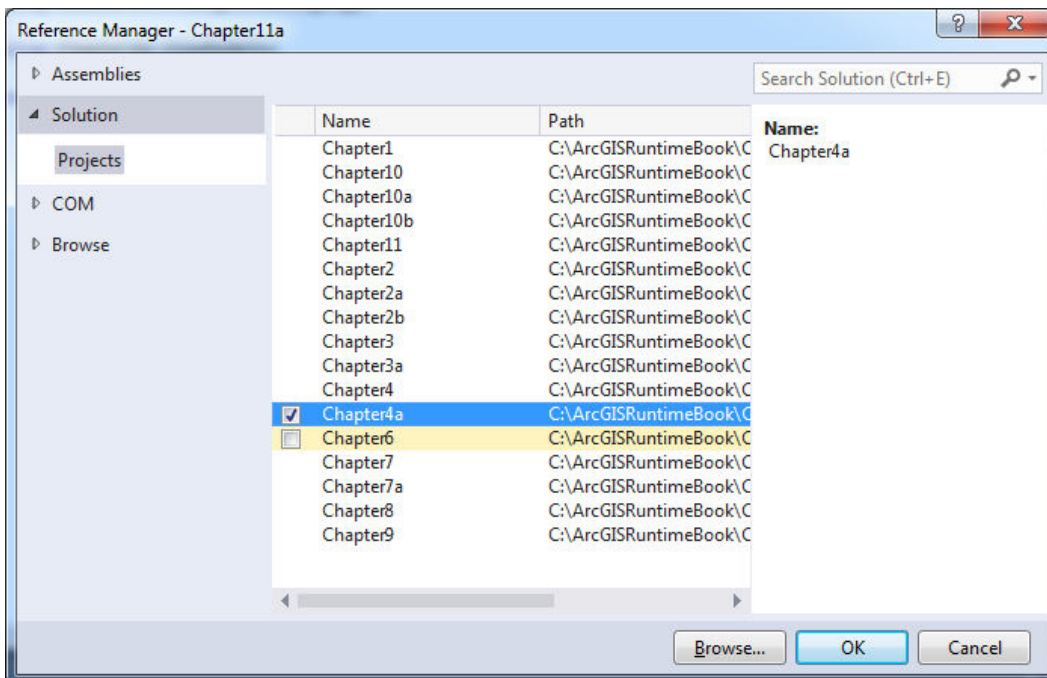
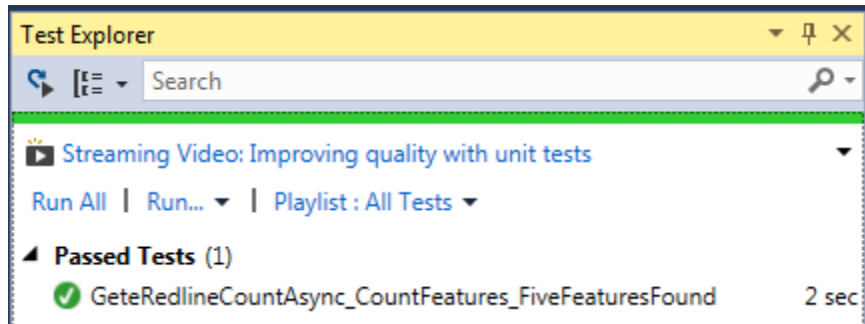
**Clipped\_Counties**

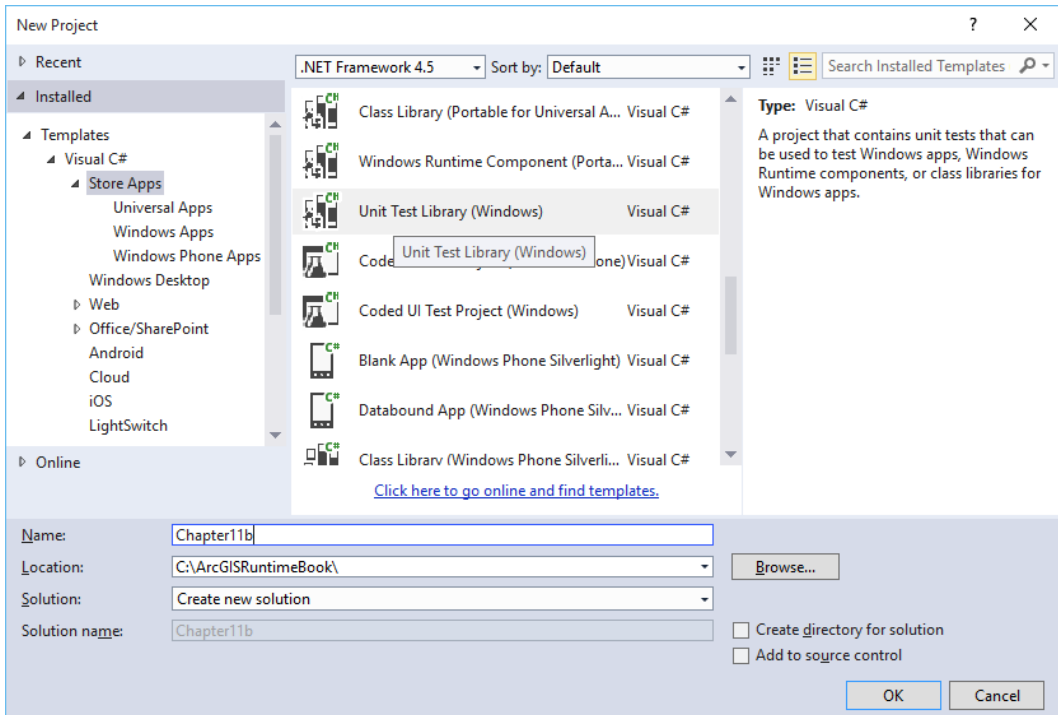
Type: **GPFeatureRecordSetLayer**

## Chapter 11: Testing and Performance

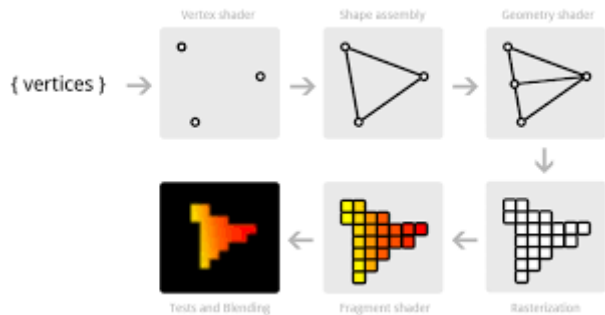


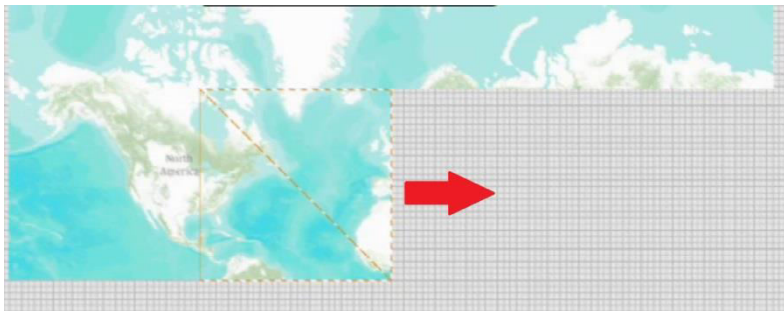
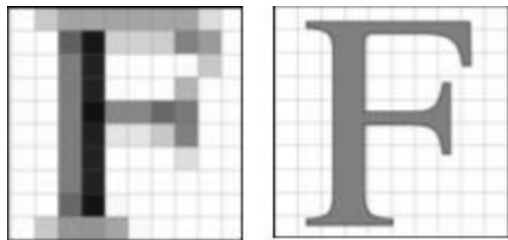
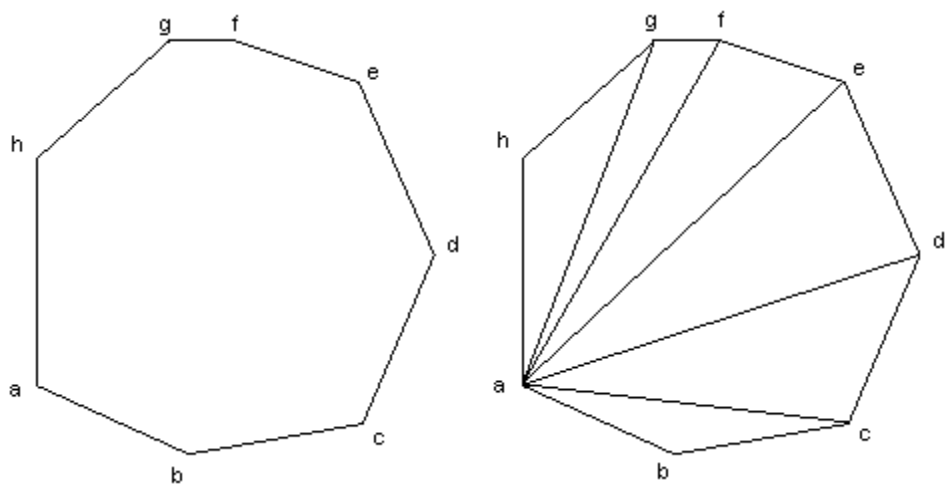




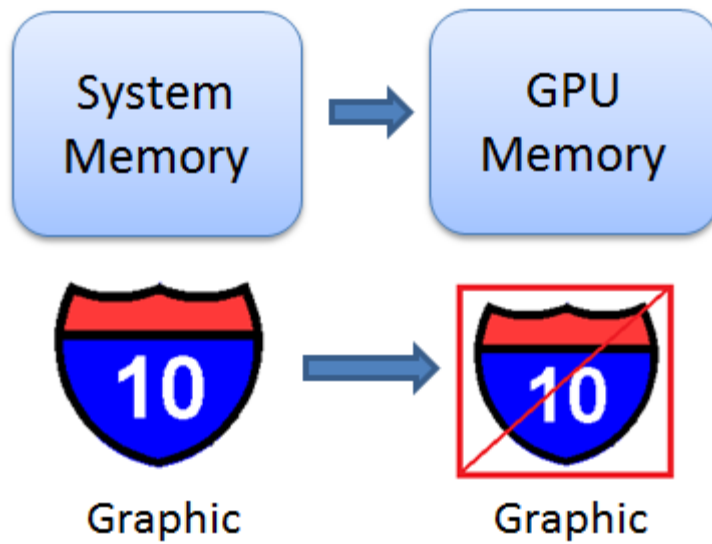


Software Technology Performance Factors				
Software	Desktop	Graphics	Density/Portal	
AGS103 REST		2D	Vector Only	
2.13 Mbpsd				
Complexity	%DataCache	Resolution	Output	Client Traffic
Med_Medium	0%	WebDefault	Default	2.13 Mbpsd

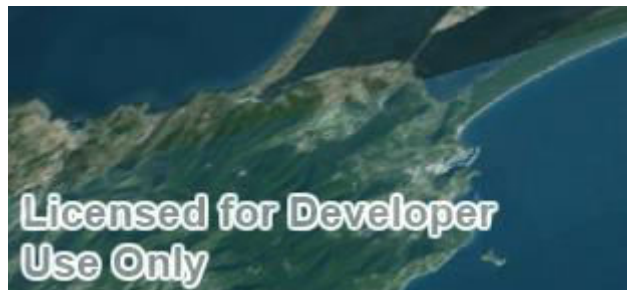








## Chapter 12: Configuring, Licensing, and Deploying



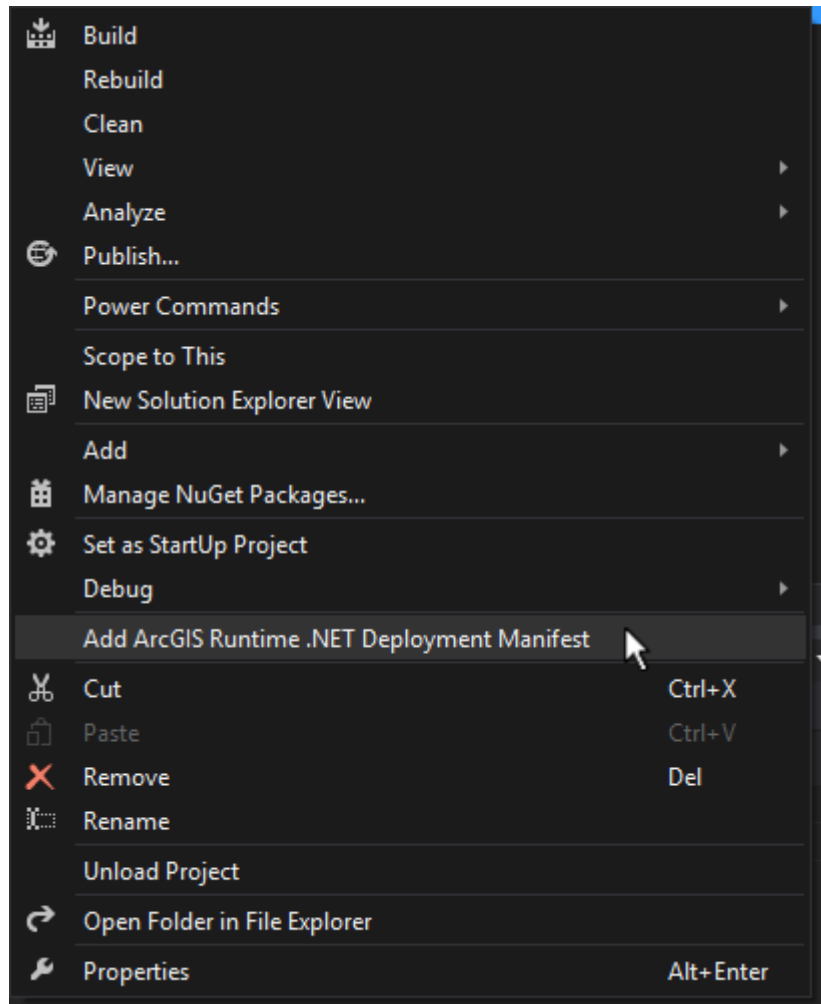
Client ID:

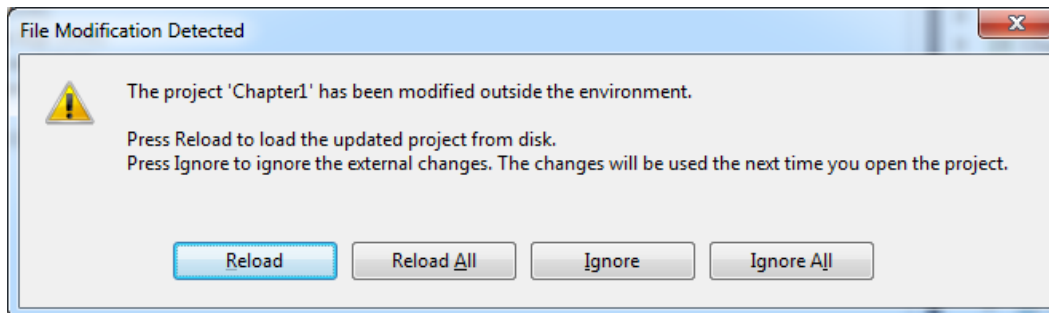
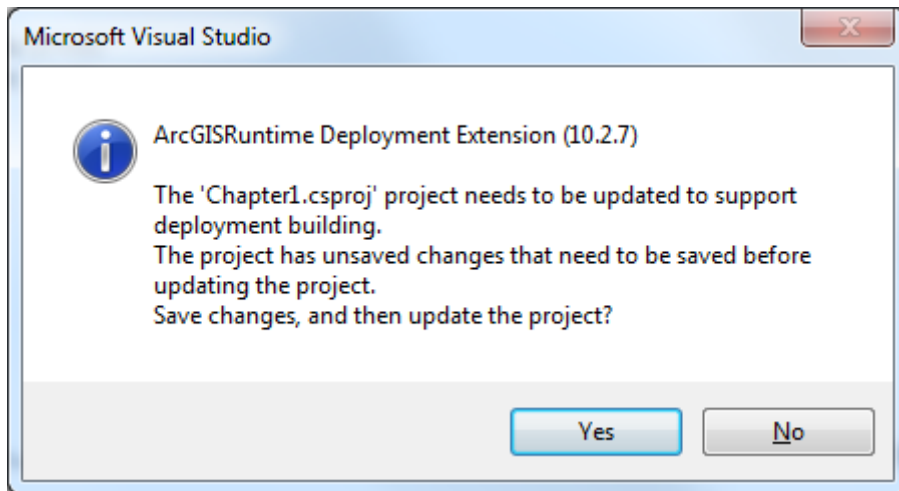
L8zaLqifxURXlwZJ



Public identifier for this application

**Copyright Text:** Sources: Esri, DeLorme, NAVTEQ, USGS, NRCAN, METI, iPC, TomTom





Deployment.arcgisruntimemanifest\* - [X]

The properties of the ArcGIS Runtime deployment for your app are contained in the deployment manifest file. You can use the manifest file to modify the deployment configuration.

Project:

Do not write local deployment to the output folder for the current configuration.  
Selected size: **371MB** Building Debug (AnyCPU). Deploying (Win-32,Win-64)

- ArcGIS Runtime (54MB)
- Specialized Symbology
  - Military (MIL2525C) (26MB)
  - Military (App6B) (17MB)
  - Hydrographic (S57) (14MB)
- Local Server (317MB)
  - Geocoding (13MB)
  - Geoprocessing (185MB)
    - Spatial Analyst (22MB)
    - 3D Analyst (25MB)
    - Network Analyst (22MB)
    - Map Server Results (2MB)
  - Python Scripting (114MB)
    - Python Geoprocessing tools (87MB)
    - Python PDF output support (13MB)
  - Additional Data Formats
    - Vector (7MB)
    - Raster (3MB)
      - Mosaic Rasters (12MB)
      - ECW Rasters (6MB)
    - SDE (1MB)
      - DB2 (2MB)
      - Informix (6MB)
      - Oracle (7MB)
      - Postgres SQL (5MB)
      - SQL Server (12MB)
  - Additional Projection Engine Transformations (360MB)
  - Debug (11MB)
    - Logging (3KB)

(extension SDK=10.2.6; manifest file SDK=10.2.6)

