

Mapping Mashup/Data Integration Development Resources

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Virtual Globes

A virtual globe is a 3D software model or representation of the Earth or another world. Compared to a conventional globe, virtual globes have the additional capability of representing many different views on the surface of the Earth. These views may be of geographical features, man-made features such as roads and buildings or abstract representations of demographic quantities such as population. A virtual globe provides the user with the ability to freely move around in the virtual environment by changing the viewing angle and position. (source: http://en.wikipedia.org/wiki/Virtual_globe)

Google Earth

<http://earth.google.com/>

Google Earth is a virtual globe program that was originally called Earth Viewer, and was created by Keyhole, Inc, a company acquired by Google in 2004. It maps the earth by the superimposition of images obtained from satellite imagery, aerial photography and GIS 3D globe. (source: http://en.wikipedia.org/wiki/Google_earth)

Google Earth Plug-in

<http://code.google.com/apis/earth>

Microsoft Virtual Earth

<http://www.microsoft.com/VIRTUALEARTH/>

Microsoft Virtual Earth is a geospatial mapping platform produced by Microsoft. It allows developers to create applications that layer location-relevant data on top of the Virtual Earth map imagery. This includes imagery taken from satellite sensors, aerial cameras (including "Bird's Eye" aerial imagery taken at 45 degree angle view to show building façades and entrances) as well as 3D city models and terrain. The Virtual Earth platform also provides a comprehensive point-of-interest database and the capability to search by business, person and address. (source: http://en.wikipedia.org/wiki/Microsoft_Virtual_Earth)

Virtua Earth Interactive SDK

<http://dev.live.com/virtualearth/sdk/>

NASA WorldWind

<http://worldwind.arc.nasa.gov/>

WorldWind is a free open source virtual globe developed by NASA and open source community for use on personal computers running Microsoft Windows. The program

overlays NASA and USGS satellite imagery, aerial photography, topographic maps and publicly available GIS data on 3D models of the Earth and other planets.

(source: http://en.wikipedia.org/wiki/NASA_World_Wind)

NASA WorldWind Java SDK

<http://worldwind.arc.nasa.gov/java/index.html>

ArcGIS Explorer

<http://www.esri.com/software/arcgis/explorer/index.html>

ArcGIS Explorer is a free 3D GIS viewer produced by ESRI Inc. It is a part of ArcGIS software suite. AGX can be used as a client for ArcGIS Server, ArcIMS, ArcWeb

Services and WMS. It supports many GIS file formats (both vector and raster) . (source:

http://en.wikipedia.org/wiki/ArcGIS_Explorer)

Mapping Services and Application Programming Interfaces

Open, reusable web maps: Web maps in this category are usually more complex web mapping systems that offer APIs for reuse in other people's web pages and products.

(source: http://en.wikipedia.org/wiki/Web_mapping#Open.2C_reusable_web_maps)

(http://en.wikipedia.org/wiki/List_of_online_map_services)

(http://en.wikipedia.org/wiki/Comparison_of_web_map_services)

An application programming interface (API) is a set of functions, procedures, methods or classes that an operating system, library or service provides to support requests made by computer programs. (source: <http://en.wikipedia.org/wiki/API>)

Google Maps

<http://maps.google.com/>

Google Maps is a free web mapping service application and technology provided by Google that powers many map-based services including the Google Maps website, Google Ride Finder and embedded maps on third-party websites via the Google Maps API. It offers street maps, a route planner for bicycles, pedestrians, and cars, and an urban business locator for numerous countries around the world. (source:

http://en.wikipedia.org/wiki/Google_Maps)

Google Mashup Editor

<http://www.googlemashups.com/>

Google Mashup Editor is an online mashup creation service created by Google. (source:

http://en.wikipedia.org/wiki/Google_Mashup_Editor)

Microsoft Live Search Maps

<http://maps.live.com/>

Live Search Maps is a web mapping service provided as a part of Microsoft's Windows Live online applications services suite and powered by the Microsoft Virtual Earth

framework. (source: http://en.wikipedia.org/wiki/Live_Search_Maps)

Microsoft Popfly

<http://www.popfly.com/>

Microsoft Popfly is a website that allows users to create web pages, program snippets, and mashups using the Microsoft Silverlight rich internet applications runtime and the set of online tools provided. (source: <http://en.wikipedia.org/wiki/Popfly>)

Yahoo Maps

<http://maps.yahoo.com/>

Yahoo! Maps is a free online mapping portal provided by Yahoo!. (source: http://en.wikipedia.org/wiki/Yahoo_Maps)

Yahoo Pipes

<http://pipes.yahoo.com/>

Yahoo! Pipes is a web application from Yahoo! that provides a graphical user interface for building applications that aggregate web feeds, web pages, and other services, creating Web-based apps from various sources, and publishing those apps. (source: http://en.wikipedia.org/wiki/Yahoo!_Pipes)

Open Source Desktop GIS Clients

gvSIG

<http://www.gvsig.gva.es/>

gvSIG is a multilingual, open source geographic information system (GIS) that can handle both vector and raster data. It features basic editing tools for the creation and maintenance of vector or raster spatial data on a variety of file formats, including remote data sources. (source: <http://en.wikipedia.org/wiki/Gvsig>)

Quantum GIS

<http://www.qgis.org/>

Quantum GIS (often abbreviated to QGIS) is a free software GIS (mapping, spatial analysis, etc.) application which is similar to commercial GIS packages. (source: http://en.wikipedia.org/wiki/Quantum_gis)

MapWindow

<http://www.mapwindow.org/>

MapWindow GIS is an open source GIS (mapping) application and set of programmable mapping components. It has been adopted by the United States Environmental Protection Agency as the primary GIS platform for its BASINS (Better Assessment Science Integrating Point and Nonpoint Sources) watershed analysis and modeling software. (source: http://en.wikipedia.org/wiki/MapWindow_GIS)

Commercial Desktop GIS Clients

ArcGIS

<http://www.esri.com/software/arcgis/>

ArcGIS is the name of a group of geographic information system software product lines produced by ESRI. At the desktop GIS level, ArcGIS can include: ArcReader, which allows one to view and query maps created with the other Arc products; ArcView, which allows one to view spatial data, create maps, and perform basic spatial analysis; ArcEditor which includes all the functionality of ArcView, includes more advanced tools for manipulation of shapefiles and geodatabases; or ArcInfo the most advanced version of ArcGIS, which includes added capabilities for data manipulation, editing, and analysis. There are also server-based ArcGIS products, as well as ArcGIS products for PDAs.

Extensions can be purchased separately to increase the functionality of ArcGIS. (source: <http://en.wikipedia.org/wiki/Arcgis>)

Web Browser Clients

Geospatial One Stop

<http://www.geodata.gov/>

National Atlas

<http://nationalatlas.gov/>

Great Lakes Maps & GIS

<http://gis.glin.net/>

Oregon Coastal Atlas

<http://coastalatlas.net/>

WisMap, Wisconsin State Cartographer's Office

<http://www.sco.wisc.edu/wisclinc/viewer.php>

Geography Network, ESRI

<http://www.geographynetwork.com/>

Glossary (Wikipedia)

Geographic Information System

http://en.wikipedia.org/wiki/Geographic_Information_System

Web Mapping

http://en.wikipedia.org/wiki/Web_mapping

Mashup

<http://en.wikipedia.org/wiki/Mashup>

Mashup (web application hybrid)

[http://en.wikipedia.org/wiki/Mashup_\(web_application_hybrid\)](http://en.wikipedia.org/wiki/Mashup_(web_application_hybrid))

Distributed GIS

http://en.wikipedia.org/wiki/Distributed_GIS

Neogeography

<http://en.wikipedia.org/wiki/Neogeography>

Resources

Open Web Mapping Course – Penn State University

<https://courseware.e-education.psu.edu/courses/geog585/content/home.html>