



Getting Started

bingTM maps

For Enterprise

This document has been designed to answer questions and provide resources around the Bing Maps for Enterprise (BME) Platform. Questions range from how to get started, where are useful online developer resources, to reports around how other US Government customers are leveraging their existing technologies and using Bing Maps today.

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Microsoft Bing Maps for Enterprise (BME)

How to get started and other helpful stuff

In May 2009 Microsoft updated the name from Microsoft Virtual Earth to Microsoft Bing Maps for Enterprise. Several references to the former Bing Maps name are still included in this document.

1. Microsoft Bing Maps Overview and Technical Webcasts

- [Microsoft and IDV Solutions at Work for the Enterprise](#) *if you have problems accessing this url, please access it from this site <https://www2.gotomeeting.com/register/964510731>*
Key takeaways from this webinar featuring the Maritime Administration, U.S. DOT case study:
 - Bing Maps brings clarity to business intelligence data and augments situational awareness
 - Bing Maps integrates with other Microsoft technologies and ESRI ArcGIS tools to provide the visualization for collaborative, geospatial data applications
 - Visual Fusion empowers everyone in an organization to create interactive, geospatial mashups with unlimited sources of data
 - Visual Fusion provides a streamlined platform for building killer apps that drive agility, collaboration and insight

- [Bing Maps at Work In State and Local Government](#) *if you have problems accessing this url, please access it from this site <http://www.microsoft.com/virtualearth/industry/publicsector.aspx>*
Public sector agencies use Bing Maps to:
 - **Bring clarity** to business intelligence through deep situational awareness.
 - **Extend investments** in such technologies as Microsoft SQL Server 2008, SharePoint, and ESRI ArcGIS.
 - **Enhance connections** through the Bing Maps Web Services and securely relay data on private or classified networks.

- **Bing Maps Technical Webcasts**

[Bing Maps 6.2 Technical Webcast On Demand](#)
Hey everyone. Mark Brown here. I uploaded my webcast into our SkyDrive service and have posted it here for your viewing pleasure. Check out my blog post from last week for the download details for the samples from this webcast. Enjoy.....

[Samples from VE 6.2 Technical Webcast](#)
Hey everybody, Mark Brown here. I hope you enjoyed our technical webcast today. I wanted to provide you with the demos I showed during our presentation. These should give you a leg up in exploring the features from both the Bing Maps 6.2 Map Control and our Bing Maps Web Services 1.0. Download from SkyDrive Enjoy.....

Microsoft Bing Maps Webcast on Latest Release

On Oct. 2, Chris Pendleton will host a Microsoft Corp. webcast introducing the latest version of Bing Maps platform. The webcast, titled “Momentum Webcast: See More and Do More with Microsoft Bing Maps (Level 100),” focuses on the new features including mobile support, expanded international mapping, more data, richer imagery and improved functionality. For more information, please visit <http://blogs.msdn.com/virtualearth/archive/2008/09/11/virtualearth-webcast-for-upcoming-release.aspx>.

2. Helpful Bing Maps & Microsoft Geospatial Platform Links

- To explore Bing Maps:
 - www.bingmaps.com
- Bing Maps Interactive SDK:
 - <http://dev.live.com/virtualearth/sdk/>
- Bing Maps Developer Site (Landing site for all developer resources)
 - <http://dev.live.com/virtualearth/>
- Bing Maps Map Control SDK 6.2:
 - <http://msdn.microsoft.com/en-us/library/bb429619.aspx>
- Bing Maps Web Services SDK 1.0:
 - <http://msdn.microsoft.com/en-us/library/cc980922.aspx>
- Bing Maps API articles
 - <http://msdn2.microsoft.com/en-us/library/bb545001.aspx>
- SQL Server 2008 Spatial
 - Overview - <http://www.microsoft.com/sqlserver/2008/en/us/spatial-data.aspx>
 - Tools - <http://www.codeplex.com/sqlspatialtools>
 - Forum - <http://social.msdn.microsoft.com/forums/en-US/sqlspatial/threads/>

3. Bing Maps Platform Staging Environment & Developer Evaluation Account

Staging Environment

Bing Maps Platform has a Staging environment for the [Bing Maps Customer Identification](#) feature (client token service). The Bing Maps Staging Environment offers you a free staging area to try out new features and functionality, including the Bing Maps Customer Identification Staging Environment. Perform small-scale testing in the Staging Environment, watermarked as “staging” for clear differentiation, without impacting your billing.

Here’s what you can do in the Staging Environment:

- Evaluate the platform and develop with the latest features for free
- Test new applications without being billed or impacting your production environment
- Build the next version of your Bing Maps application without impacting your current version

For more information on the new Bing Maps Staging Environment, check out the “Implementing Customer Identification” article on MSDN [here](#).

Bing Maps Platform Developer Evaluation Account

Note, in order to use the Bing Maps Customer Identification feature, you must have a Bing Maps Platform Developer Account (formerly known as a MapPoint Web Service Developer Account). If you don't already have one, please follow these instructions to get one:

- a. Get a [Windows Live ID](#) or use your existing one.
- b. Create a Bing Maps Platform Developer Evaluation Account [here](#).
- c. Once done you will have a Bing Maps Platform Developer Evaluation Account with access to the Bing Maps Customer Identification Staging Environment.
- d. In order to have your Bing Maps Platform Developer Evaluation Account converted to a Bing Maps Platform Developer Production Account so that you have access to the Bing Maps Customer Identification Production Environment, please contact your Bing Maps Sales Representative or email maplic@microsoft.com.

4. Microsoft Photosynth

What is Microsoft Photosynth? <http://photosynth.net/about.aspx>

Photosynth is included with a license to the Microsoft Bing Maps platform. Photosynth enables users to transform their digital photos into a three-dimensional, 360-degree experience that displays the big picture, as well as its details. It is a technology that analyzes standard 2D digital photos and when it determines that pixels in multiple pictures match, it “connects” those photos.

The value for Public Sector customers is that it gives constituents rich detail on public works, landmarks, new buildings and bridges, and more—all through a web browser.

- ✓ Pictures need not be taken from the same perspective, plane or zoom level to be connected. On the contrary, multiple views are better.
- ✓ Connected photos are stitched together in 3D space in a synth.
- ✓ Users navigate the synth to view the photos in context with each other.

Photosynth – Terms & Components:

- ✓ **Synth** – This is a group of photos that have been matched/connected in virtual 3D space.
- ✓ **Synther** – This is what makes synths. It lives in the cloud. Users upload their photos from the Photosynth website.
- ✓ **Synth Viewer** – The Silverlight browser-based plug-in for viewing synths. In order to view a synth, a person must first download the synth viewer (the download prompt automatically happens when someone tries viewing a synth the first time).
- ✓ **Sea Dragon** – This is the imagery zoom functionality Photosynth uses to optimize performance. An example of this benefit is [here](#) – zoom in to the high resolution photos of individual tiles on the orbiter's underside.

Photosynth – How is it Licensed?

- ✓ The Photosynth license gives Photosynth users the benefits of unlisted synths, but it also removes the restrictions on storage and the number of synth views per month. Microsoft Photosynth is licensed through the Microsoft Bing Maps platform, available on your existing Microsoft Select or Enterprise agreement.
- ✓ If your synth is publicly available, you do not need to license Photosynth. You can create and publish your synths for free at www.photosynth.net, where they can be easily discoverable for anyone.
- ✓ With unlisted synths, users can mark their synths “unlisted,” making them undiscoverable from the Photosynth website. Organizations can control how viewers see and interact with their synths, by driving users to their own Web sites.
- ✓ Unlimited Synth Storage. Standard unlisted synths are restricted to 1 GB of storage. Public synths have a 20 GB storage restriction. We remove both storage restrictions for synths if you have a Photosynth license, which is a component of the Microsoft Bing Maps platform.

- ✓ Unlimited Synth Views. Standard unlisted synths are restricted to no more than 500 views/month. Organizations with Photosynth license rights have no restriction on the number of views/month of their synths.
- ✓ Synth views are billable Bing Maps transactions. A synth view is counted whenever a viewer opens the synth. Whether the person views one photo and leaves after 10 seconds, or takes 15 minutes to view 500 photos in the synth, it's still counted as a single "synth view".

If a customer is already licensed for Bing Maps, Photosynth can be used and will be billed as a Bing Maps transaction. If a customer is not licensed for Bing Maps, to license Photosynth, customers will need to add Bing Maps transactions to their Microsoft Volume License agreement (Select or Enterprise).

5. Transaction Tracking & Transaction Definitions

○ Tracking Transactions

Bing Maps Customer Identification feature

<http://msdn2.microsoft.com/en-us/library/bb924353.aspx>

The Bing Maps Customer Identification feature is an important part of the Bing Maps platform. This feature allows you to access and view reports detailing your application's platform usage from the [Bing Maps Platform Customer Services Site](#). These reports display information about your Bing Maps Platform usage, including both MapPoint Web Service transactions and Bing Maps map control transactions. As a licensed customer, you are required to use the Customer Identification feature as part of your service level agreement (if you are using Bing Maps). It's a convenient and accurate way to track how your investment is being utilized.

Benefits for licensed customers:

- Access to transaction reporting
- More accurate billing and auditing for customers
- Access to the Bing Maps Staging Environment to test your Bing Maps application(s) with the Customer Identification feature without being billed
- Better customer support from reporting information

Integrating the Bing Maps Customer Identification feature into your Bing Maps applications is a simple process for developers. Once you have implemented the Bing Maps Customer Identification feature in your Bing Maps application(s), you can access your Bing Maps transaction usage reports by going to the View Reports section of the [Bing Maps Platform Customer Services Site](#).

Transaction Definitions

"Billable Transactions" means any transaction using any of the following Service functionalities (and subsets thereof), or any successor names thereof, all as described in the SDK.

Find Methods: Find, FindAddress, FindByProperty, FindById, FindNearRoute, FindNearby, GetLocationInfo, ParseAddress.

Render Methods: GetMap

Route Methods: CalculateRoute, CalculateSimpleRoute

"Billable Transactions" - 8 rendered tiles equal one billable transaction. One single tile is 256 x 256 pixels. Tiles may be of standard map style, satellite imagery (Re-viewed browser cached

tiles do not count towards billable transactions. Tiles can be cached in the browser for up to 8 hours.

6. References & Case Studies:

- **City of Miami Connects Citizens to Services with Enhanced Visualization Technology**
See the site in action | Watch the video
Case Study: City of Miami-
<http://www.microsoft.com/casestudies/casestudy.aspx?casestudyid=4000001663>

- **New York City Transit offers an immersive experience for residents and visitors**
See the site in action
<http://virtualearth4gov.spaces.live.com/Blog/cns!369B39F890CE30C1!3179.entry>

- **EPA uses Bing Maps's Satellite and Aerial Imagery as Foundation for Future Growth**
See the site in action
Case Study: Environmental Protection Agency-
<http://www.microsoft.com/casestudies/casestudy.aspx?casestudyid=4000001265>

My Environment <http://www.epa.gov/> (enter your zip code) and learn about the Air Quality, Water and other health factors in around the United States of America. Download the meta data to your local PC via KML, SHP, XLS, or other formats. Great example of data dissemination.

My Environment Application details

<http://virtualearth4gov.spaces.live.com/Blog/cns!369B39F890CE30C1!3325.entry> See the site in action at <http://www.epa.gov/>

- **Microsoft Bing Maps Provides Mapping for LA County Department of Mental Health**
<http://virtualearth4gov.spaces.live.com/blog/cns!369B39F890CE30C1!3182.entry>

- **Los Angeles County: Solar Map** <http://lacounty.solarmap.org/>

- **Los Angeles Department of Water and Power:** <http://134.201.250.86/KPI/PRPSummary.aspx>

- **South Coast Air Quality Management District:**
<http://www2.aqmd.gov/webappl/gisaqi2/VEMap3D.aspx>

- Texas Natural Resources Information Systems **Geospatial Emergency Management Support System**

- **Washington State Tourism Creates Immersive Online Experience**
See the site in action

- **City of Austin, Austin Energy Storm Center** <http://my.austinenergy.com/outages/>

- **City of Seattle, Department of Information Technology:** My Neighborhood Map [See the site in action](#)
- **City of Seattle, Department of Planning and Development:**
Activity Locator <http://web1.seattle.gov/dpd/maps/>
GIS <http://web1.seattle.gov/dpd/maps/dpdgis.aspx>
Permit and Complaint Status <http://web1.seattle.gov/DPD/permitstatus/>
- **State of West Virginia** – Alcohol Beverage Control Administration
<http://www.wv.gov/Pages/agency.aspx?newid=40> as well as County Locator
<http://www.wv.gov/local/county/Pages/marshall.aspx>
- **City of Boston**, Boston Redevelopment Authority [See the site in action](#)
- **Ada County, Idaho** (Law Enforcement Incidents)
- **Alabama Department of Finance** Bing Maps to showcase their land/building lease information
- **North Carolina State Bureau of Investigation** North Carolina Sex Offender and Public Protection Registry
- **Tallahassee Economic Development Council**
- **Regional Government Alliance Builds Connections with Integrated Mapping** Case Study: **eCity GovAlliance-** <http://www.microsoft.com/casestudies/casestudy.aspx?casestudyid=4000001914>
- **University of Cambridge's Research Group Unlocks the Secrets of Darwinian Research** Case Study: University of Cambridge-
<http://www.microsoft.com/casestudies/casestudy.aspx?casestudyid=4000001650>
- Texas Department of Transportation (TxDOT) - Project Tracker, in an effort to keep the public informed of the progress of funded transportation projects statewide, TxDOT is launching a new way of presenting project-related information
http://apps.dot.state.tx.us/apps/project_tracker/projectquery.htm
- Texas Department of Transportation (TxDOT) Rider 55 - These [projects](#) are planned to go to contract in FY 2010. The benefits and impacts to the economy, safety, pavement quality and connectivity to the state transportation network are identified.
- Texas Department of Transportation (TxDOT) Rider 56 - These are the [top 100 congested segments of roadways](#) on the state highway system. Improvements are identified for each segment.
- Several Department of Transportation sites
Ohio Department of Transportation [See the site in action](#)

Kansas Department of Transportation http://511.ksdot.org/KanRoadPublic_VE/Default.aspx

Texas Department of Transportation Intelligent Transportation System sites:
<http://virtualearth4gov.spaces.live.com/blog/cns!369B39F890CE30C1!2282.entry>

Amarillo
<http://amait.dot.state.tx.us/AMA-ITS/default.htm>

El Paso DoT Lone Star Traffic Site
<http://virtualearth4gov.spaces.live.com/blog/cns!369B39F890CE30C1!735.entry>

Dallas/Fort Worth Traffic
<http://dfwtraffic.dot.state.tx.us/#map.create%2832.78034721066306%2C-96.79641723632812%2C11%29%3B>

Houston Transtar Traffic Map
<http://virtualearth4gov.spaces.live.com/blog/cns!369B39F890CE30C1!784.entry>

Laredo
<http://lrdits.dot.state.tx.us/its-cameras/?Speed=Low>

Lubbock
<http://lbbits.dot.state.tx.us/LBB ITS/default.htm>

Wichita Falls
<http://wfsits.dot.state.tx.us/WFS-zoom/default.htm>

Virginia DoT 511 Site
<http://virtualearth4gov.spaces.live.com/blog/cns!369B39F890CE30C1!2230.entry>

Virginia DoT Truck Restrictions Site
<http://virtualearth4gov.spaces.live.com/blog/cns!369B39F890CE30C1!2219.entry>

Louisiana DOT: Ferry & Movable Bridge – Click on the ferry and bridge icon, you will be redirected to a VE page that will give you the location and status.
<http://www.dotd.la.gov/ferry/>

Louisiana DOT: Average Daily Traffic Counts - Select the parish (county), this displays all of the stations in the area. Mouse over to see the counts for each station.
<http://www.dotd.la.gov/highways/tatv/>

City of Seattle, Department of Transportation: Traveler's Information Map
<http://web5.seattle.gov/travelers/>

Illinois State Dept of Transportation – Stimulus Tracker, Congressional Boundaries,
<http://wrc.dot.il.gov/economicstimulus/map.aspx>

7. Blogs Brimming with Bright Ideas

- Bing Maps for Public Sector
<http://virtualearth4gov.spaces.live.com/default.aspx?wa=wsignin1.0>
- Bing Maps, An Evangelist's Blog <http://blogs.msdn.com/virtualearth/default.aspx>
- Bing Maps 3D <http://ve3d.spaces.live.com/>
- Johannes Kebeck, Bing Maps Technical Specialist blog
<http://johanneskebeck.spaces.live.com/default.aspx>
- Creating Thematic Maps with Bing Maps and SQL Server 2008
<http://johanneskebeck.spaces.live.com/blog/cns!42E1F70205EC8A96!7718.entry>
- Creating Heat Maps with Bing Maps and SQL Server 2008
<http://johanneskebeck.spaces.live.com/default.aspx>
- Bing Maps/Live Maps <http://virtualearth.spaces.live.com/>
- SQL Server 2008:
 - Issac Kunen, Senior Program Manager <http://blogs.msdn.com/isaac/>
 - Ed Katibah, Principal Program Manager <http://blogs.msdn.com/edkatibah/>

8. Other Key Resources & Websites

- Bing Maps for Government Home Page
<http://www.microsoft.com/maps/industry/publicsector.aspx>
- Press Release: **Microsoft Bing Maps to Be Offered With ESRI's ArcGIS Online Services:** Mapping platform collaboration helps improve business processes, unlock and gain insight into data, and create better citizen and customer connections
<http://www.microsoft.com/presspass/press/2008/jul08/07-29ESRIPR.msp>
- ESRI ArcGIS users will have access to the robust mapping and imagery content provided by the **Microsoft Bing Maps platform inside ArcGIS Desktop and ArcGIS Server.** With **Bing Maps seamlessly integrated into ArcGIS 9.3 Desktop**, ArcGIS users are now able to easily add base maps, which feature rich aerial and hybrid views, to perform data creation, editing, analysis, authoring and map publishing with one-click access. Users can preview Bing Maps street maps, imagery and hybrid map layers at <http://resources.esri.com/arcgisonline/services>
- The ArcGIS JavaScript™ Extension for Microsoft Bing Maps™ allows you to extend the [Microsoft Bing Maps API™](http://resources.esri.com/help/9.3/arcgisserver/apis/javascript/ve/sdk/index.htm) to use ArcGIS Server services. With this extension, you can add your own data to the Microsoft Bing Maps™ Map Control and embed this map in your own page.
<http://resources.esri.com/help/9.3/arcgisserver/apis/javascript/ve/sdk/index.htm>
- Extending an ESRI investment with Microsoft Bing Maps
<http://msdn.microsoft.com/en-us/library/aa480023.aspx>
- Arc2Earth: To convert and publish your ArcGIS data to Bing Maps
<http://www.arc2earth.com/default.htm>
- Bing Maps Maps on SharePoint - There are several resources on the web that showcase Bing Maps integration with SharePoint. Below are a few for you to take a look at:
[Microsoft Bing Maps Web Part](#) - This web part leverages the SharePoint API and the VE API. It reads entries from a SharePoint list and plots the corresponding coordinates on the map.
[Community Kit for SharePoint \(Bing Maps Maps\)](#) – This is a SharePoint community supported effort, sponsored by Lawrence Liu, Community Liaison and SharePoint PM, called the Community Kit for SharePoint that features various types of solutions that “extend” SharePoint functionality. Included in the Community Kit are solutions for things like Windows Live ID integration, enhanced blog templates, enhanced wiki, discussion boards, etc. The VE maps solution provides source code, implementer's guide, and compiled binaries for integrating VE with SharePoint. The solution provides a map web part, which can be dragged and dropped

onto a SharePoint page to display a variable size Bing Maps map view. Users can also use the pushpin database to store different landmarks to be displayed on the map. The solution also provides an admin web part for managing the content of this database as well as an object model to manage content programmatically. In addition, if users want to use an existing data source to render pushpins in the map a programmable interface is provided that can be implemented to integrate the existing data source with the map, which should significantly reduce the amount of additional custom code.

[VE/SharePoint Integration Demo on wssdemo.com](#) - This is a VE demo that shows how you can simply integrate VE with a SharePoint list, with little code. You can add items to the list (using the “insert” link located at the bottom of the page, and have a pushpin programmatically placed at the Lat/Long specified.

There’s also a recent project launched on CodePlex that [showcases VE integration with Search Sever 2008](#), if you’re interested.

- Windows Live Bing Maps articles <http://msdn2.microsoft.com/en-us/library/bb545001.aspx>
- Bing Maps Forum <http://social.msdn.microsoft.com/forums/en-US/vemapcontroldev/threads/>
- Bing Maps on a Microsoft Surface Device <http://infostrat.com/home/solutions/Surface/homepagesurface.htm> built by Microsoft partner, Information Strategies.

9. Bing Maps Platform Developer Evaluation Account converted to a Production Account & Bing Maps Support Overview for Licensed Customers

Once you have licensed the Bing Maps Platform (i.e.: Bing Maps and MapPoint Web Service) through a Microsoft Volume Licensing reseller or Microsoft sales representative, please go to <https://mappoint-css.live.com/MwsSignup> to request a Volume License Bing Maps Platform Developer Account. Please note, you will need a [Windows Live ID](#) to submit your request for a Volume License Bing Maps Platform Developer Account. (Further details in **“Steps to set-up a Bing Maps Platform Developer Account for Microsoft Volume Licensing customers”**)



Steps to obtain a
Volume Licensing Bing



Bing Maps for
Enterprise Support O

10. How to Remove Birds eye imagery from Bing Maps

Government customers may use Birds eye imagery within their Bing Maps powered application only with separate written permission, per the Bing Maps Terms of Use <http://www.microsoft.com/virtualearth/product/terms.html>.

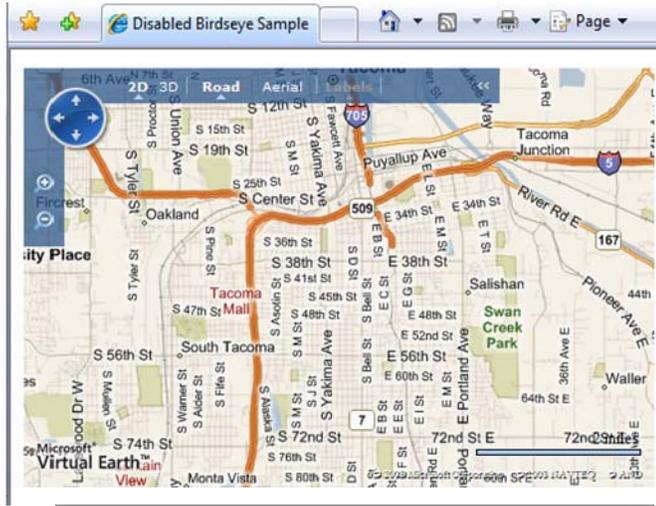
Microsoft provides a mechanism in version 6.2 of the Bing Maps API to disable Birds Eye imagery and remove links to it from the provided navigation control. To disable Birds Eye imagery, create the map and use VEMapOptions class, setting the EnableBirdseye property to false, as shown in this example:

```

var options = new VEMapOptions();
options.EnableBirdseye = false;

map = new VEMap('mapdiv');
map.LoadMap( new VELatLong(47.22, -122.44),
            12, 'r', false, VEMapMode.Mode2D, true, 0, options);

```



For details, consult MSDN (<http://msdn.microsoft.com/en-us/library/cc470015.aspx>) or this HTML sample.

```

<html>
<head>
  <title>Disabled Birdseye Sample</title>
  <script src="http://dev.virtualearth.net/mapcontrol/mapcontrol.ashx?v=6.2"></script>
  <script type="text/javascript">
    var map = null;
    function GetMap()
    {
      var options = new VEMapOptions();
      options.EnableBirdseye = false;

      map = new VEMap('mapdiv');
      map.LoadMap(new VELatLong(47.22, -122.44), 12, 'r', false, VEMapMode.Mode2D, true, 0,
options);
    }
  </script>
</head>
<body onload="GetMap();">
  <div id='mapdiv' style="position:relative; width:480px; height:320px;"></div>
</body>

```

</html>

11. Additional Questions? Send email to bmps@microsoft.com