# **Dynamic Database Browsing**

### Tutorial #8

Last Revision: February 2007

### Introduction

This tutorial was designed to introduce users to the new Dynamic Database Browsing (DDB) option for use with PerCon online database searches. The new DDB option allows users to create a .KML file used for browsing various PerCon databases from within Google Earth. Users unfamiliar with Google Earth should visit <u>http://earth.google.com</u> for more information.

### INSIDE THIS TUTORIAL

- 1 Introduction
- 1 Overview
- 2 Using DDB With A Sample .KML File
- 5 Sample Images & Results
- **9** Troubleshooting

### Overview

Dynamic Database Browsing (DDB) provides users with a new way of searching and visualizing data found in PerCon online databases. Using special .KML files, users can not only view data, but search and extract new records simply by moving and manipulating a Google Earth map. Information, such as transmitter locations or towers are displayed automatically as the user zooms into the desired geographic location. As the user moves the map, data is retrieved from PerCon servers and new results are added to the map display. Users who mainly perform geographic database searches will benefit greatly from this option as they can now search various PerCon databases visually from a single interface.



#### PerCon DataLinks Tutorial #8 - Dynamic Database Browsing Option

Using DDB With A Sample .KML File
To use the Dynamic Database Browsing option with a sample .KML file, do the following:
<b>Note:</b> The DDB option requires a copy of Google Earth installed on the user's computer. A free copy can be downloaded from <a href="http://earth.google.com/download-earth.html">http://earth.google.com/download-earth.html</a> .
In addition, users should be familiar with Google Earth. New users or those unfamiliar with basic Google Earth map functions should visit <a href="http://earth.google.com/tour/">http://earth.google.com/tour/</a> .
Step 1: Obtain a sample DDB-compatible .KML from the PerCon website at <a href="http://www.perconcorp.com/ddb_demo.kml">http://www.perconcorp.com/ddb_demo.kml</a> .
Step 2: Clicking the above link or copying/pasting the above URL into a web browser should automatically load the .KML file in Google Earth.
If Google Earth loads automatically, skip to Step 4.
Step 3: If Google Earth does not load, save the sample .KML to your computer. Launch Google Earth, select File -> Open, locate the sample .KML and click Open.
<b>Step 4:</b> The sample file should zoom into Bemus Point, NY and a marker will be displayed. However, no database results are visible and the desired databases must be enabled before using the Dynamic Database Browsing.
Step 5: To enable DDB, find the "Fly To Bemus Point" entry under "Temporary Places" on the Places panel.
<ul> <li>My Places</li> <li>Temporary Places</li> </ul>
🗄 🗈 🍑 Fly To Bernus Point
Step 6: Click on the + icon to the left of the "Fly To Bemus Point" entry to display all available databases.
→ □ S My Places
E C C Temporary Places
· ☑ III Bemus Point, NY 14712
Dynamic Database Browsing
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Demo - Towers



#### PerCon DataLinks Tutorial #8 - Dynamic Database Browsing Option

**Step 9:** After the desired databases are enabled, extractions from the database are automatically displayed as the map is moved. When Google Earth is retrieving data from the PerCon servers, the green light icon over the database link folder will change to yellow and become animated.

**Note:** Users should be aware of the data retrieval status displayed by the green and yellow icons. Users should allow the refresh process to complete, before moving the map to a new location. It is recommended that users not move the map while the status icons are yellow. When the status icons are yellow, the server is in the process of extracting and returning results for the current location. Moving the map during this process begins a new search and extraction while the server is still processing the previous requests. Too many unnecessary requests could degrade the performance of the system.

When the icon goes back to green, the data retrieval is complete. Users are then free to move the map and new extractions will be performed and automatically displayed.



### Sample Images & Results



#### Image Description:

This image shows Bemus Point, NY with Dynamic Database Browsing enabled for the FCC Frequency Database. Transmitter locations are displayed near the bottom of the image. Each transmitter is identified using the Callsign as a label.



#### Image Description:

This image shows expanded information for a transmitter. By clicking on a point, the information popup window is displayed.

Records retrieved from the FCC Master Frequency Database will display the following in the popup window:

Frequency Callsign Licensee Name Radio Service Code Class of Station Code Location



#### Image Description:

This image shows Bemus Point, NY with Dynamic Database Browsing enabled for the FCC Frequency Database and FCC Antenna Registration Database.

Transmitter locations are identified using the Callsign as a label with black text. Tower locations are identified using the Tower ID with red text.



#### Image Description:

This image shows multiple towers in 3D. Users can tilt the map by using the using the slider located in the top left corner of the map window. By tilting the Google Earth map, users can switch from a traditional 2D overhead map to a side view or any angle in between.

This sample shows 3D towers that have been extruded using height data from the tower record.



#### Image Description:

This image shows multiple objects at a single latitude and longitude. When clicking on a location with multiple objects, Google Earth automatically arranges the objects in a starburst pattern to make all points visible.

The user can then click on a desired point for additional information.



#### Image Description:

This image shows a more detailed populated map at a high zoom level. Records extracted from the FCC Master Frequency Database are labeled by callsign in black text. Records extracted from the FCC Antenna Registration File are labeled by Tower ID in red text.

# Help & Troubleshooting

**Out Of Bounds Message:** The sample DDB .KML file is limited to displaying data for Chautauqua County, NY only. If the user moves the map outside the county or tilts the map and zooms out to a high level, an Out Of Bounds message will be displayed. To remove the message, simply move the map back to Chautauqua Country or zoom in to a lower level.



Missing Data: If data is missing from a specific location, users may want to verify the following:

1. Make sure the status icons are green and not yellow. If they are yellow, allow the retrieval process to complete.

2. Verify that the record has a latitude and longitude and that the coordinates are within the map coverage. For example records for mobile licenses will not be displayed using DDB since they do not have latitude and longitude data. However, their corresponding fixed base locations would be displayed. In addition, make sure the coordinates are correct.

### **Company Information**

PerCon Corporation 4906 Maple Springs / Ellery Rd. Bemus Point NY 14712

(716)386-6015 (716)386-6013 FAX

http://www.perconcorp.com

email: sales@perconcorp.com

## **DataLinks Tutorials**

Tutorial #1: Introduction To PerCon DataLinks

Tutorial #2: PerCon DataLinks Output Options

Tutorial #3: DataLinks Frequency Finder

Tutorial #4: PerCon DataLinks Co-Channel / Adjacent Channel Analysis

Tutorial #5: DataLinks Wildcard Searches

Tutorial #6: Keyhole .KML Output Option

Tutorial #7: SQL Query Builder & Editor

Tutorial #8: Dynamic Database Browsing