TerraFly: A High Performance Web GIS

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TerraFly users visualize aerial imagery, precise street name overlays, and various other overlays. Users virtually "fly" over imagery via a web browser, without any software to install or plug in. Tools include user-friendly geospatial querying, data drill-down, interfaces with real-time data suppliers, demographic analysis, annotation, route dissemination via autopilots, customizable applications, production of aerial atlases, application programming interface (API) for web sites.

The TerraFly project has been featured on TV news programs (including FOX TV News), worldwide press, covered by the New York Times, USA Today, NPR, and Science and Nature journals.

The 40TB TerraFly data collection includes, among others, 1-meter aerial photography of almost the entire United States and 3-inch to 1-foot full-color recent imagery of major urban areas. TerraFly vector collection includes 400 million geolocated objects, 50 billion data fields, 40 million polylines, 120 million polygons, including: all US and Canada roads, the US Census demographic and socioeconomic datasets, 110 million parcels with property lines and ownership data, 15 million records of businesses with company stats and management roles and contacts, 2 million physicians with expertise detail, various public place databases (including the USGS GNIS and NGA GNS), Wikipedia, extensive global environmental data (including daily feeds from NASA and NOAA satellites and the USGS water gauges), and hundreds of other datasets.

A movie illustrating the TerraFly-powered Hydrology application:
http://n0.cs.fiu.edu/TF-Hydro

TerraFly application demonstrations are at http://terrafly.fiu.edu including:
Cadastre: USA   FL   *Hydrology*: USGS   S.FL   *Relief*: Haiti   *AutoPilots*: Miami Port
NSF   Washington   Rio Grande   Detroit   Seattle   Star Island   FIU   Oleta Park
Vancouver Olympics   Spiral   Authoring   *Historical imagery*:   Miami through Time
Washington   Dubai   Vancouver

Powerpoint: http://n0.cs.fiu.edu/TF.ppt