



**SOFTWARE SOLUTIONS**

# **Using Map Views and Spatial Analytics in OBI 11g Hands On Lab**

**BIWA Summit 2013**

**Tim Vlamis**

**Vlamis Software Solutions**

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**<http://www.vlamis.com>**



# Vlamiis Software Solutions

- Founded in 1992 by Dan Vlamiis in Kansas City, MO
- Developed/implemented more than 200 Oracle BI systems
- Specializes in ORACLE-based:
  - Business Intelligence
  - Analytic Options to Oracle DB (OLAP, Data Mining, Spatial)
  - Data Warehousing
  - Training and mentoring
- Expert presenter at major Oracle conferences
- [www.vlamiis.com](http://www.vlamiis.com) (blog, papers, newsletters, services)
- Co-authored book “Oracle Essbase & Oracle OLAP”
- Beta tester for OBIEE 11g
- Reseller for Simba and Nokia map data for OBIEE
- HOL Coordinator for BIWA Summit 2013





# Tim Vlami's Bio

- 20+ years experience in business modeling and valuation, forecasting, and scenario analyses
- Trainer for Oracle University Two-Day Data Mining Course
- Professional Certified Marketer (PCM) from AMA
- Active Member of NICO (Northwestern Institute on Complex Systems)
- Adjunct Professor of Business Benedictine College
- MBA Kellogg School of Management (Northwestern)
- BA Economics Yale University

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# Join the community



*For the Complete Technology & Database Professional*

- IOUG Oracle Spatial and Graph SIG
  - Signup on the membership/interest list today
  - Talk to board members (Steve Lytle & Steve Pierce)
  - Email: [oraclespatialsig@gmail.com](mailto:oraclespatialsig@gmail.com)
  - \*Increased interest from business/BI communities
- SIG 2013 Events
  - May 21-22: Location Intelligence & Oracle Spatial and Graph User Conference, Washington DC
  - Fall: Oracle OpenWorld San Francisco



# Oracle Spatial and Graph User Conference and Location Intelligence

**May 21-22, 2013, Ronald Reagan Building and  
International Trade Center, Washington, DC**

**Join this premier Oracle IOUG SIG event for mapping  
& spatial technologies. Attend technical talks and  
hands-on labs, led by Oracle experts and users**

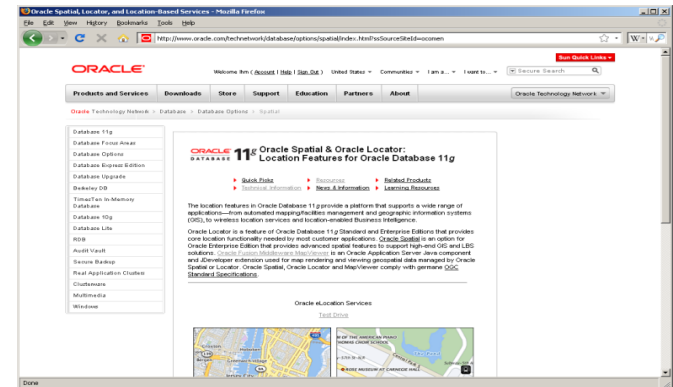
**Call For Speakers Open! Submit by Feb. 1**  
**Early Bird registration**

**[www.locationintelligence.com](http://www.locationintelligence.com)**



# For more information

- Oracle Business Analytics: [oracle.com/bi](http://oracle.com/bi)
  - @OracleAnalytics
  - @OracleBITech
  - [www.youtube.com/evolvingBI](http://www.youtube.com/evolvingBI)
- Oracle Spatial and Graph Resources:
  - [www.oracle.com/technetwork/database/options/spatialandgraph/spatial](http://www.oracle.com/technetwork/database/options/spatialandgraph/spatial)  
White papers, downloads, case studies & more
  - IOUG Spatial and Graph SIG
  - @oracledatabase
  - [www.facebook.com/OracleDatabase](http://www.facebook.com/OracleDatabase)



# Thank You!

Amazon Web Services  
Hosting cloud machines

Vlami Software Solutions, Inc. <http://www.vlami.com>  
Managing and configuring VMs for HOLs

- Jonathan Clark and Dan Vlami

Oracle Corporation

- Jayant Sharma
- Abhinav Agarwal

Nokia/Navteq

- Dan Abugov





# When Are Map Views Useful?

- Visualizing data related to geographic locations.
- Showing or detecting spatial relationships and patterns.
- Showing lots of data in a relatively small area.
- Drilling down from a (map) overview to a detailed report, chart, or graph.
- When is location important? Can the dimension be plotted on a map?





# Map Interactivity in OBIEE 11g

- Display BI data on top of maps
  - Color fill
  - FOI (feature of interest) point display
- Interact with other Dashboard Elements
  - Drive map content with dashboard prompts
  - Drive map content through drilling and navigation
  - Drive other dashboard elements through map interactions
- Reveal information on maps through mouseovers
- Drill to map detail

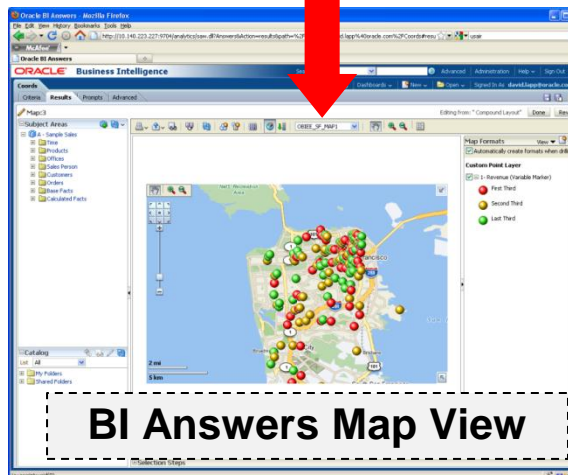
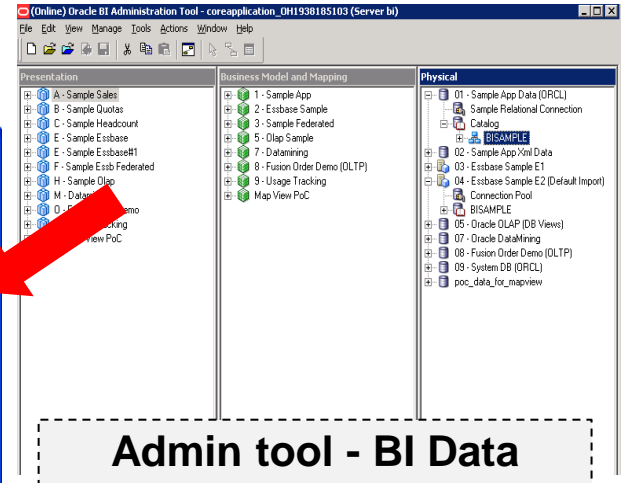
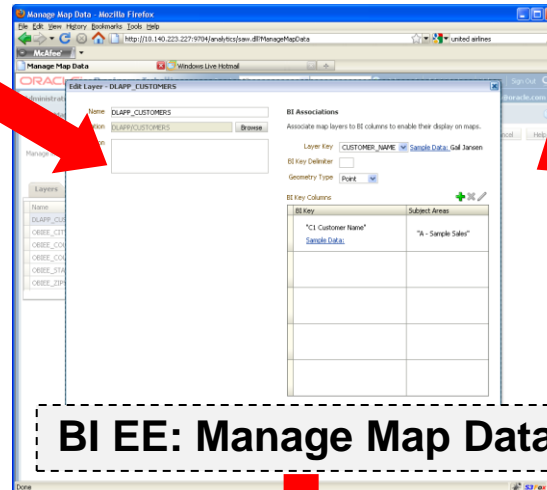
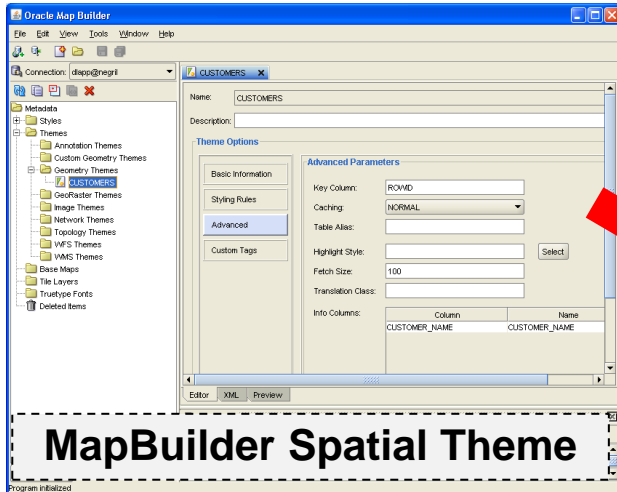


# Oracle MapViewer

- Component of Oracle Fusion Middleware
- Runs in WebLogic and other J2EE environments.
- Developer's visualization “toolkit” of programmable Java components and APIs for rendering maps and data.
- Used for embedding maps in web-based applications and rendering location-based content.
- Connects to geospatial application data tables.
- Map Builder is the java application for editing metadata in an Oracle Database (themes, styles, base maps).



# MapViewer “mashup” in OBIEE





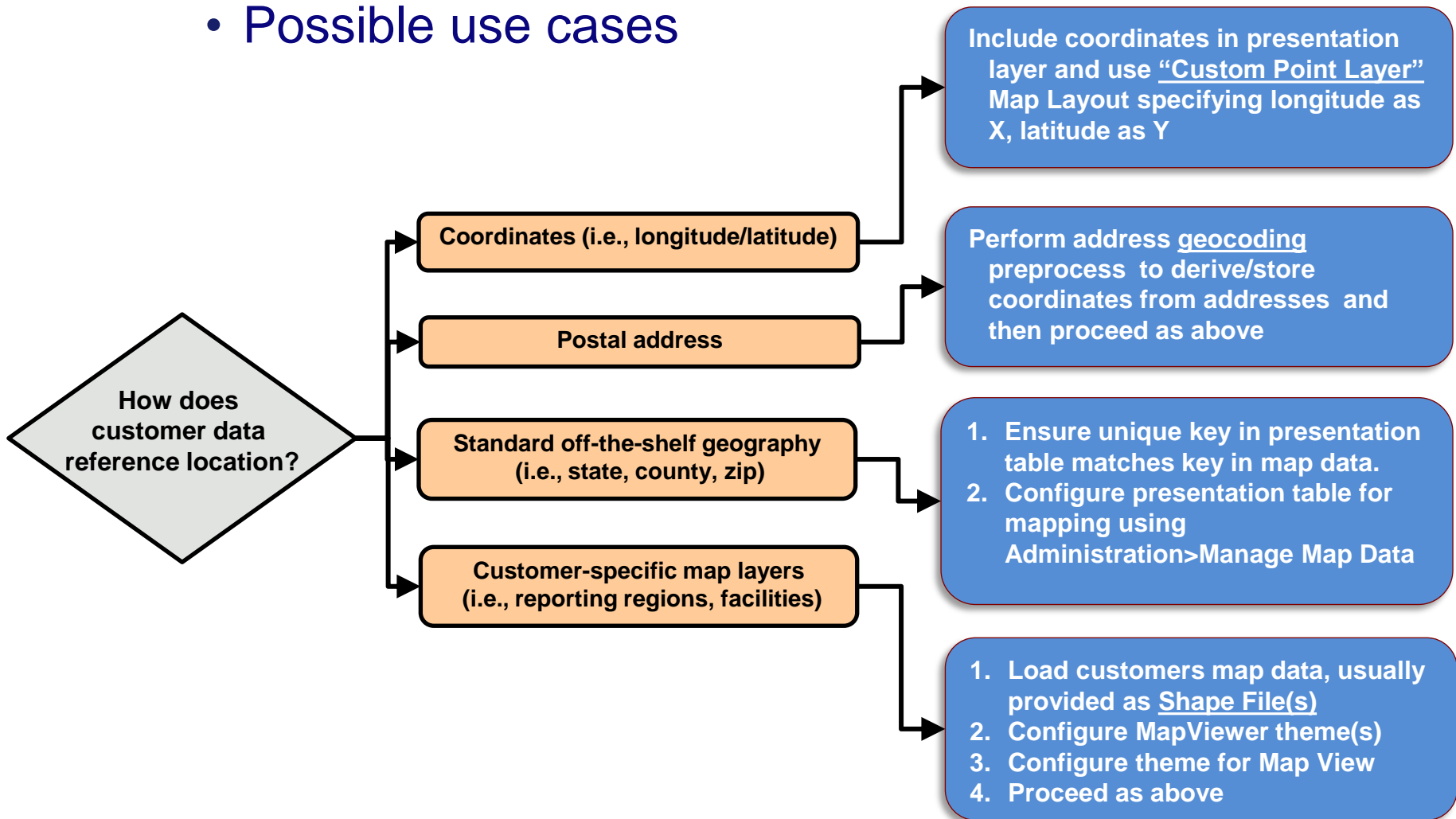
# Map Definitions

- **STYLE**
  - Define rendering properties for spatial shape or point on maps.
  - Can control fill color, border color, line thickness, line style and more
- **THEME**
  - Typically associated with a spatial geometry layer
  - Metadata that specifies geospatial data to be rendered, styles to be applied, and optional query conditions for filtering.
  - County/state boundaries, major highways, etc...
- **BASEMAP**
  - A grouping of predefined themes to create a map
  - Maps can share themes
  - When associating a theme with a map, can specify min scale and max scale (sometimes known as zoom control)
- **MAP**
  - Basemap with additional themes overlain



# Using Spatial Data in OBIEE 11g

- Possible use cases





# Map View Formats

- Color Fill (choropleth)
  - Percentile, Value, Continuous binning
  - Dashboard user run-time slider
- Graphs – Bar, Pie
  - Adjustable graph size
  - Series by second dimension
- Bubble (variable sized)
  - Min-Max size specification
  - Color specification
- Variable Shape
  - Circle, Triangle, Diamond
  - Customizable
- Image
  - Imported via MapViewer
  - More can be added from MapBuilder
- Custom Point Layer
  - Uses Lat / Long
  - Does not require a Layer Def



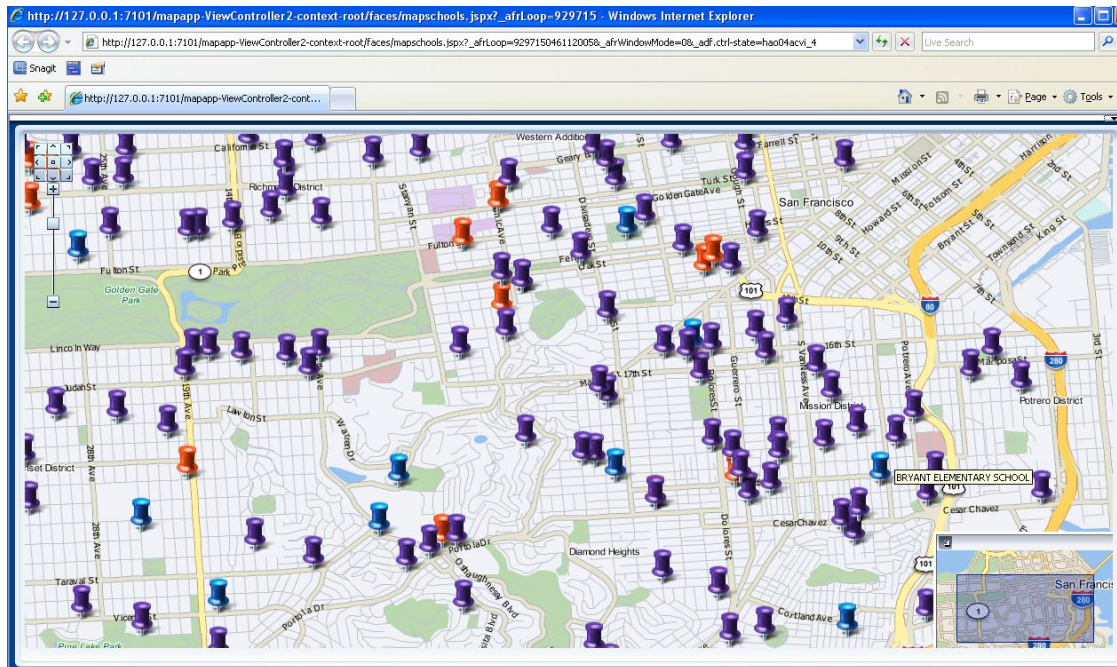
# Nokia Location & Commerce Data Formerly NAVTEQ

- Nokia is the leading global provider of digital map, traffic and location data that enables navigation and location-based platforms around the world.
- Nokia data is licensed direct or through a reseller.
- Licenses are use specific.
- Nokia data resides inside your own Oracle Database.
- Nokia publishes an ODF (Oracle Data Format) version of its data designed specifically for use in an Oracle Database instance.



# Nokia Content for OBI

- Geocoding
- Points of Interest



AIRPORT  
ALTERNATE FUEL STATION  
AMUSEMENT PARK  
ATM  
ATTORNEY  
AUTO DEALERSHIP-USED CARS  
AUTO DEALERSHIPS  
AUTO PARTS  
AUTO SERVICE AND MAINTENANCE  
AUTOMOBILE CLUB  
BANK  
BANQUET HALL  
BAR OR PUB  
BOATING  
BOOKSTORE  
BORDER CROSSING  
BOWLING ALLEY  
BOWLING CENTRE  
BUS STATION  
BUS STOP  
BUSINESS FACILITY  
BUSINESS SERVICE  
CAMPING  
CAR WASH/DETAILING  
CARGO CENTRE  
CASINO  
CEMETERY  
CHECK CASHING SERVICE  
CHURCH  
CINEMA  
CITY HALL  
CIVIC/COMMUNITY CENTRE  
CLEANING AND LAUNDRY  
CLOTHING STORE  
COCKTAIL LOUNGE  
COFFEE SHOP  
COMMUTER RAIL STATION  
COMPUTER AND SOFTWARE  
CONSUMER ELECTRONICS STORE  
CONVENIENCE STORE  
CONVENTION/EXHIBITION CENTRE





# Let's Get Started!

- Add a simple map view to an analysis
- Interact with data through drill paths
- Add bar graphs and other data visualizations to maps
- Add map layers and join keys to BI data
- Use maps as a master to control detail analysis in dashboard
- Perform geospatial calculations and analyses



# Thanks!

- Using Map View and Spatial Analytics in OBI
- Jan 10, 2013
  
- Tim Vlami
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